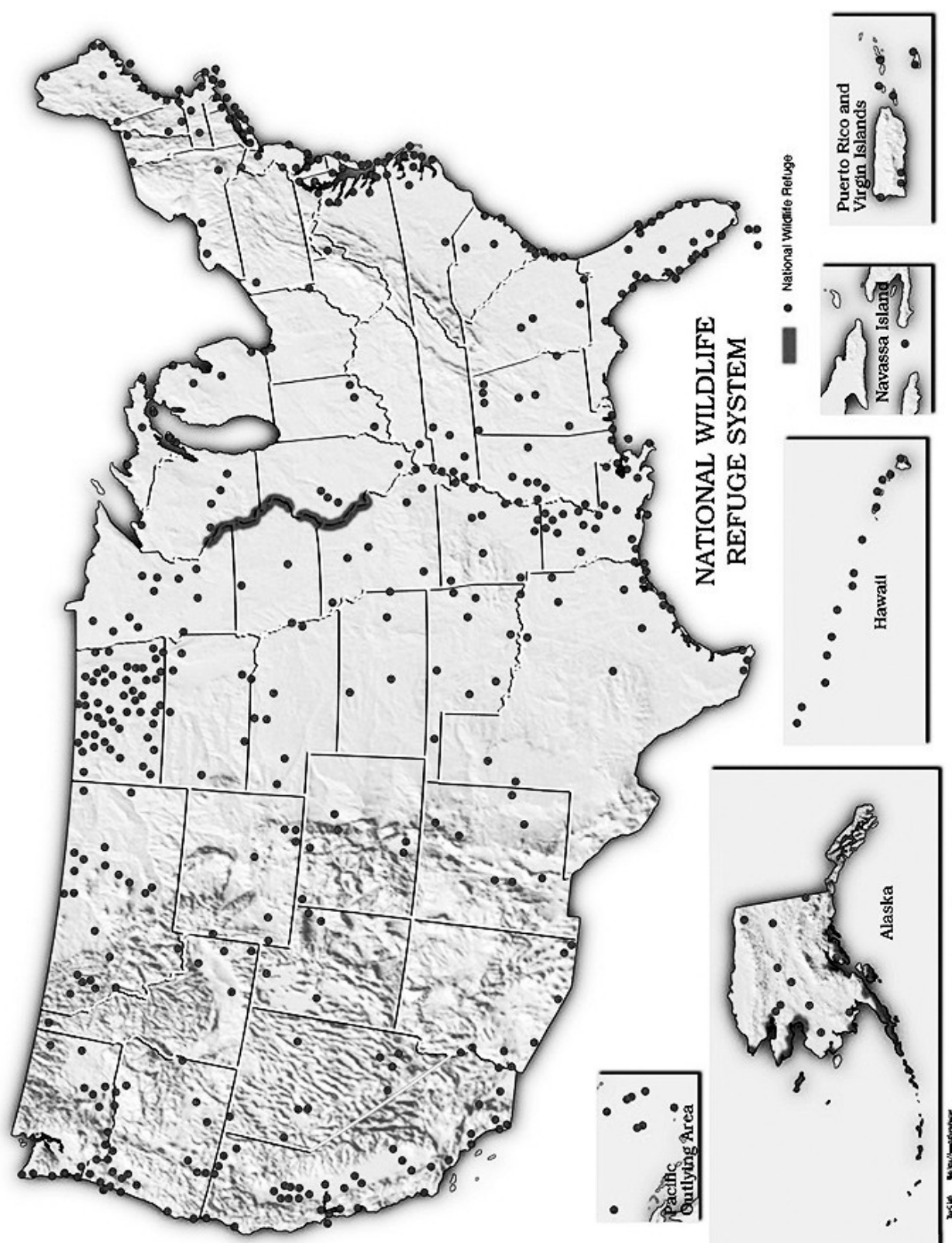


## Refuge Operations and Maintenance

Refuge Operations and Maintenance	2002 Actual	2003 Estimate	Uncontrollable & Related Changes (+/-)	Program Changes (+/-)	2004 Budget Request	Change From 2003 (+/-)
Refuge Operations \$(000) FTE	242,928 2,785	268,750 2,820	+1,923 -	+22,106 +46	292,879 2,866	+24,129 +46
Refuge Maintenance \$(000) FTE	77,029 -	107,729 -	- -	+1,407 -	109,136 -	+1,407 -
CAM (See General Business Operations Expenses)	[6,186]	[TBD]	-	-	[TBD]	-
<b>Total, Refuge Operations and Maintenance \$(000) FTE</b>	<b>319,957 2,785</b>	<b>376,479 2,820</b>	<b>+1,923 -</b>	<b>23,613 +46</b>	<b>402,015 2,866</b>	<b>25,536 +46</b>



## Refuge Operations

Refuge Operations	2002 Actual	2003 Estimate	Uncontrollable & Related Changes (+/-)	Program Changes (+/-)	2004 Budget Request	Change From 2003 (+/-)
Protect Wildlife \$(000) FTE	48,526 579	52,922 586	+ 400 -	+ 2,222 + 9	55,544 595	+ 2,622 + 9
Improve Habitat \$(000) FTE	83,027 1,015	88,997 1,028	+703 -	+ 6,066 + 17	95,766 1,045	+ 6,769 + 17
Serve People \$(000) FTE	110,382 1,185	122,133 1,200	+ 820 -	+ 13,919 + 20	136,872 1220	+ 14,739 + 20
Salton Sea Recovery \$(000) FTE	993 6	998 6	- -	-1 -	997 6	-1 -
Planning \$(000) FTE	- -	3,700 -	- -	- -	3,700 -	- -
<b>Total, Refuge Operations \$(000) FTE</b>	<b>242,928 2,785</b>	<b>268,750 2,820</b>	<b>+1,923 -</b>	<b>22,206 +46</b>	<b>292,879 2,866</b>	<b>24,129 +46</b>

### 2004 Program Overview

In its first 100 years, the National Wildlife Refuge System (NWRS) grew from a small Florida sanctuary called Pelican Island to a 95 million acre network of lands and waters ranging from remote coral atolls to expansive wilderness areas to wildlife oases near our largest cities. The NWRSs 540 national wildlife refuges and 37 wetland management districts conserve an entire array of this nation's diverse ecosystems:

tundra, deserts, forests, great rivers, vast marshes, small prairie potholes, swamps, mountains, prairies, estuaries, and coral reefs. In addition, they are located in every state and territory in and near communities ranging from small Alaskan Native villages to large metropolitan areas. Refuges are part of the American landscape, drawing nearly 38 million visitors a year and tens of thousands of community volunteers who provide integral assistance in managing the wildlife resources at their doorstep. More than 2,700 refuge employees, thousands of volunteers, hundreds of support groups, and many neighbors and local communities who have dedicated themselves to national wildlife refuges are ready to take these wildlife treasures into another century of conservation.



The NWRS contributes extensively to the draft DOI strategic and outcome goals as it carries out its mission, especially in the areas of Resource Protection, Recreation, and Serving Communities. Resource protection goals are pursued for natural resources by applying good science to the inventory, monitoring,

study, and restoration or improvement of biological communities; restoring, enhancing, or annually managing habitats; correcting problems such as invasive species, wildlife diseases, and reducing or removing impacts of environmental pollutants and contaminants; and managing and protecting heritage resources such as Wilderness, Wild and Scenic Rivers, and numerous other heritage categories. Resource protection goals are also furthered for cultural and historical resources through their identification, protection, management, and interpretation. Recreation goals are achieved through providing public access to allow enjoyment of wildlife dependent recreation and education consistent with protection of fish, wildlife and plant resources; rendering quality experiences that include adequate availability of staff, signs, brochures, etc.; supplying safe and accessible facilities for the public to enjoy these resources; and managing recreation fees in a manner that provides the government with a fair return on investments and visitors with appropriate value for fees paid. Serving communities goals are pursued through collaborative management of wildland fire prevention, response, and recovery, and a refuge law enforcement program that provides adequate protection of visitors, natural and cultural resources, and government property.

The NWRS plays a key role in the Service accomplishing its mission of working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. For example, the Refuge program cooperates closely with the Endangered Species, Migratory Birds, and Fisheries programs to promote healthy populations of species that live on or migrate through refuges and nearby habitat; consults the Habitat Conservation program to address contaminants issues on refuges and promote private lands partnerships; and, collaborates closely with the Engineering program to develop streamlined standards for moderate-cost visitors centers. In addition, the Service is working with the Department of Transportation to prepare for reauthorization of the Refuge Roads program.

The NWRS concentrates on maintaining healthy lands throughout the system for the conservation, management, and restoration of fish, wildlife, and plant resources and their habitats. Other key NWRS activities include providing wildlife dependent recreational uses and volunteer opportunities, and ensuring the safety and security of visitors. All of these efforts are premised on strong partnerships with local communities and other groups who want to help protect our nation's wildlife heritage.

The growth of the NWRS has brought many new challenges and complex management issues: maintaining or improving habitat for a wide array of species; protecting increasing numbers of visitors; providing more opportunities for volunteers; helping secure our nation's borders; controlling illegal activities; maintaining our facilities; accommodating new and expanded refuges; and, strategically planning for how the system will look and function during its second century. The Service has developed and implemented a series of national databases that collect and provide crucial information for managing the NWRS these include:

- **The Refuge Management Information System (RMIS)** - Provides a comprehensive list to managers of operational and maintenance projects. The list includes additional refuge operational projects, and is used to track the maintenance projects. Taking care of what we have is a huge capital investment. The NWRS has \$8.7 billion worth of buildings, utilities, dikes and levees, roads, fences, dams, vehicles and tools.
- **Refuge Comprehensive Accomplishment Reporting System (RCAR)** - Documents annual "inputs" (dollars/staff days) for each management "output" (e.g. acres of habitat restored, biological surveys conducted). Outputs are linked to refuge system "outcomes" such as endangered species recovery, maintenance of migratory bird populations, and public recreation. Many of the elements measured by RCAR are included in the new draft DOI Strategic Plan; amendments will need to be made this reporting mechanism to capture the numerous elements

brought forward in the DOI Strategic Plan.

- **Refuge Operating Needs System (RONS)** - Tracks operational staffing, wildlife and habitat conservation, and visitor service needs at individual refuges.
- **Maintenance Management System (MMS)** - Tracks the major maintenance needs of the refuge system. MMS information is used for budget requests, track accomplishments, and plan and prioritize facility needs for the NWRS Five-Year Deferred Maintenance Plan. This Internet-based system allows around-the-clock project initiation and tracking by field managers.
- **Real Property Inventory (RPI)** - The refuge system maintains a RPI to track the condition and replacement value of all real property within the NWRS. The RPI contains information on each piece of real property and is linked to the MMS for those properties that have deferred maintenance deficiencies.
- **Personal Property Inventory (PPI)** - The refuge system uses the PPI to track vehicles, equipment, and other personal property individually valued over \$5,000 within the system.
- **The Facility Management Information System (FacMIS)** - Tracks and accounts expenditures on maintenance projects. FacMIS links information from the Federal Financial System (FFS), and other Service databases to track expenditures on NWRS maintenance.
- **Service Asset and Maintenance Management System (SAMMS)** - This powerful commercial data management system is designed to make maintenance operations more efficient and accountable, track maintenance projects, maintenance personnel duties, preventive maintenance expenditures and property conditions. The Service adapted MAXIMO for use on NWRS and Fish Hatchery System (NFHS) field stations and pilot tested it at 11 field locations from May to September 2002. In FY 2003, the Service will dedicate \$2 million to ensure proper and efficient implementation at those stations utilizing the MAXIMO software system. Full implementation is projected for all NWRS and NFHS field stations by the spring/early summer of 2005. MAXIMO will incorporate the MMS and RPI databases in approximately 2 years.

## 2002 Program Performance Accomplishments

<b>New Strategic Plan-Based Performance Measures:</b> <i>[Resource Protection/Sustained Biological Communities on DOI Lands: [Recreation / Improve Access to Appropriate Recreation Opportunities on DOI Managed or Partnered Lands]</i>	<b>FY 2002 Planned</b>	<b>FY 2002 Actual</b>	<b>Change</b>	<b>Reason of Change/Comment</b>
# acres of NWRS enhanced by controlling aquatic and terrestrial species	187,000	217,945	+30,945	Goal Exceeded. Definitions of invasive species control and habitat restoration were clarified at the beginning of FY 2002; this likely resulted in a shifting of some acreage to the controlling invasives category from what had previously been reported as habitat restoration.
# of acres annually managed/enhanced in the NWRS	3,256,000	3,460,765	+204,765	Goal Exceeded. Combination of favorable weather and lower costs per acre for some activities allowed acre target to be exceeded.

# of acres of restored refuge habitat	120,000	68,268	-51,732	Goal Not Met. Definitions of invasive species control and habitat restoration were clarified at the beginning of FY 2002; this likely shifted some acreage to the controlling invasives category from what had previously been reported as habitat restoration. Other factors such as high variability in cost per acre and increased needs for annual habitat management may have also contributed.
# of interpretive, educational, and recreational visits	41,000,000	37,723,491	-3,276,509	Goal Not Met. A number of the refuges reported a decline in visitors likely due to the overall reduction in travel and tourism following the 9/11/2002 terrorist actions and subsequent war on terrorism.
# of volunteer hours	1,270,000	1,120,295	-149,705	Goal Not Met. This decline in volunteer hours is likely due to the overall reduction in travel and tourism following the 9/11/2002 terrorist actions and subsequent war on terrorism.,
# of new friends groups	17	22	+5	Goal Exceeded

In FY 2002, NWRS Operations received \$242,928,000 to fulfill its mission critical objectives. To achieve those objectives the NWRS Operations budget is divided into three program elements, (1) Protect Wildlife, (2) Improve Habitat, and (3) Serve People. These elements define our commitment to the stewardship of wildlife and wildlife lands for the citizens of the United States. These activities coincide with the new draft DOI strategic goals to properly steward natural and cultural resources to provide for the quality public recreation and to serve communities.

The Service has made steady progress in funding our highest priorities, as identified and ranked by refuge managers nationwide in Tier One of the Refuge Operations Needs System (RONS). Beginning in FY 2001, the NWRS, at the direction of Congress, developed a prioritization system within RONS to identify the highest priority projects. A two-tiered system within the RONS database was established to separate the essential needs of the NWRS (Tier One) from the other important opportunities contained in the RONS database (Tier Two). Tier One represents the essential projects within these categories needed for the NWRS to establish adequate baseline operational funding to meet its mission. Tier One is divided by specific project types such as mission critical, essential staffing, new and significantly expanded refuges, and visitor facility enhancements. Each Tier One project includes the corresponding funding and staffing necessary to fully implement the project on a refuge.

### Protect Wildlife

This activity encompasses functions contained within the new draft DOI strategic plan outcome goal to “sustain biological communities on DOI managed and influenced lands and waters.” The NWRS supports at least 700 species of birds, 220 mammals, 250 reptiles and amphibians, more than 200 kinds of fish, and countless species of insects and plants. Roughly 260 of these species are listed under the ESA. The ways in which this diversity of life and the habitat on which it depends are nurtured is the very foundation of the NWRS. In adhering to the spirit of the *National Wildlife Refuge System Improvement*

*Act of 1997* that, "... wildlife and wildlife conservation must come first," in FY 2002 projects focused on survey and monitoring, managing and restoring populations, and working with our interagency partners to:

- continue to use the latest technologies for monitoring, surveys, in-depth field studies, and collecting and analyzing baseline information on refuges.
- continue science-based management to develop integrated population goals and objectives, and use this information to implement appropriate wildlife conservation strategies at each refuge, establish ecosystem habitat priorities, and to direct the strategic growth and long-term management of the NWRs.
- strengthen Comprehensive Conservation Plan development, implementing the new protocols for inventory of natural resources, habitat management policy, and a handbook for writing planning goals and objectives.
- begin a synthesis of scientific literature examining the impacts of recreation on wetland birds. This information is being developed to help facilitate priority wildlife-dependent recreation while maintaining quality habitat and healthy migratory bird populations.
- implement Monitoring Avian Productivity (MAPS) of locally nesting songbirds on refuges such as Mason Neck (VA) and Brigantine (NJ).
- complete the tenth and final year in 2002 of banding at the Ridgefield NWR (WA) Migratory Bird Banding Station. This station was one of the longest operating banding sites for multiple species of birds in the Pacific Northwest and has banded more than 3,350 birds. The site produced considerable information on a variety of resident and migratory species, notably song sparrows and Swainson's thrushes. This decade long effort will continue to yield positive results as bands are returned in the future providing valuable population data.
- conduct thinning operations to treat 86 acres of pineland for Gopher Tortoise management at Bogue Chitto NWR (LA).
- mist-net and band more than 400 shorebirds, representing 3 different species. Radio transmitters were attached to approximately 40 of these birds. Used monitoring of transmitter signals and color leg bands to evaluate the length of stay for shorebirds using Big Stone NWR (MN) as migratory stop-over site. Collected blood samples from 80 birds for evaluation of metabolic requirements and general health of the migratory population of shorebirds using the refuge.
- remove 15 tons of marine debris, mostly abandoned trawl and drift nets, from the reefs and beaches of Midway Atoll. If not removed, this net debris is an entrapment hazard to endangered Hawaiian monk seals, threatened sea turtles and other marine life. Removal of net from Midway Atoll and other islands within the Hawaiian Archipelago is part of a cooperative effort between the Service, U.S. Coast Guard, National Marine Fisheries Service, and Hawaii Wildlife Fund.



### **Improve Habitat**

This activity encompasses functions contained within the new draft DOI strategic plan "improve health of watersheds, landscapes and marine resources that are DOI managed or influenced;" "sustain biological communities on DOI managed and influenced lands and waters;" and, "protect Natural Heritage resources." The Service strives to protect a national network of virtually every type of habitat and

landscape found in the U.S. The Service's goal is to represent all habitats and keep NWRS lands and waters biologically healthy and secure from outside threats. Management focuses on restoring damaged habitats into productive states, managing lands, moist soils, and waters to maintain their productivity, and protecting wildlife, plant species and communities, including unique areas such as coral reefs, and developing partnerships among the States and neighboring landowners to cooperatively extend these efforts onto adjoining landscapes and throughout watersheds and ecosystems.

Mission-critical habitat programs include on-the-ground wilderness protection, invasive species management and control, coastal habitat protection, clean water protection, water rights protection, compatibility use regulations, riparian habitat protection, contaminant and toxic substance control, law enforcement, coral reef protection, and wetlands protection.

National Wildlife Refuges are often viewed as both cornerstones and barometers of the environmental health of ecosystems. To maintain, enhance, or restore these systems we must start with the basics: water quality and quantity, clear air, and healthy soil.



Water resources, perhaps one of the most fundamental elements for the NWRS, is critical to creating and maintaining habitats and the wildlife that depend upon these sites. In FY 2002, Two Rivers NWR (IL) installed a 48,000 gpm pumping system to conduct water level management of the 1,300 acre lower Swan Lake. The outcome was improved water quality, vegetative cover, resting and feeding habitat for migratory birds, and increased recreational opportunities for refuge visitors.

Air quality is important, not only for human health, but also for healthy fish, wildlife, plants, and the habitats they depend on. The refuge system manages 21 of the designated 158 Class I areas that receive special protection from air pollution under the Clean Air Act (CAA). The CAA requires the Service to preserve, protect, and enhance air quality related values (AQRVs), which includes resources such as vegetation, wildlife, water, soils, and visibility. The Service has an important role in both the regulatory process and in forming partnerships to ensure that air pollution does not adversely affect resources on Service lands. In addition, the Service conducts special studies to identify and evaluate AQRVs and monitors air quality at a number of refuges. Findings from these studies have shown:

- vegetation damage due to air pollution (i.e. ozone) has occurred on such common species as milkweed, black cherry, and aspen at a number of refuges, including Edwin B. Forsythe (NJ), Cape Romain (SC), and Mingo (MO).
- the coastal area near Chassahowitzka NWR (FL) is susceptible to aging (eutrophication) from atmospheric deposition air pollutants, particularly nitrogen compounds.
- visibility impairment occurs in wilderness areas nationwide.

Contaminants threaten lands and waters everywhere, including those of the NWRS. Refuge personnel collaborate closely with technical experts from the Service's Environmental Contaminants and Engineering programs in planning and executing contaminant investigations and clean-ups on refuges. For example, at Kofa NWR (AZ) an Interdisciplinary team of Ecological Services and refuge staff



continued an effort to analyze the effects of potential heavy metal contamination from abandoned mines on bighorn sheep and bats. In 2002, tissue and blood samples were collected from both hunter killed sheep and those captured and transplanted.

**Invasive species management**, which compete with native species, are also a serious problem throughout the country. They cause significant declines of trust species and degrade millions of acres of refuge lands, waters, and wetlands. These invaders have become the single greatest biological threat to refuges and the Service's wildlife conservation mission. Annual control operations are needed on nearly 250,000 aquatic acres alone throughout the NWRS, not including river systems.

The National Invasive Species Council, established by Executive Order 13112 is composed of high-level government leaders (Secretarial level and similar) to coordinate the development of the National Invasive Species Management Plan and promote prevention and control of invasive species at the federal level. The NWRS conducts activities in response to the Executive Order; coordinates and communicates with Council staff; and, participates in the development of the plan, national invasive species policy, crosscutting budget initiatives, and legislation in cooperation with the Council, Federal Interagency Committee for the Management of Noxious and Exotic Weeds, Aquatic Nuisance Species Task Force, and other organizations and agencies.

The NWRSs invasive species team has developed a National Strategy for Management of Invasive Species that includes assessment information, monitoring recommendations and best management practices, and will guide invasive species management on refuges nationwide. NWRS Operations for invasive species management, guided by the National Strategy for Management of Invasive Species, includes preventive activities, control and eradication, research and monitoring, cooperative partnerships and cost-share projects, as well as public education about invasive species. Techniques used in the field include the application of chemicals, mechanical and hand removal, prescribed fire, cultural techniques, and biological control. Prevention efforts, including an emergency/rapid response program for the system, are key to preventing newly discovered infestations from gaining a foothold on refuges.

The Service has developed guidance for invasive species early detection and rapid response operations through its National Strategy for Management of Invasive Species. Early detection in the invasive species program is critical and relies heavily on inventory and descriptions of the location, status, and spread of invasive species infestations. Trained refuge professionals and volunteers make up a strong network for the early detection program.

In addition, the Service's invasive species management program includes prevention activities, control and eradication, research and monitoring, cooperative partnerships and cost-share projects, as well as public education about invasive species. Integrated pest management techniques used in the field include the application of chemicals, mechanical and hand removal, prescribed fire, cultural techniques, and biological control. Preventive efforts, including an emergency/rapid response program for the NWRS, are key to preventing newly discovered infestations from gaining a foothold on refuges.

An example of the Service's interdisciplinary approach to invasive species management is seen in the nutria control and marsh restoration efforts on and around Blackwater NWR (MD), established under P.L. 105-322. In FY 2000, Researchers began collecting information in a 3-year pilot study and are currently developing a strategy to implement a control program for nutria based upon the studies results. Additional FY 2002 examples include:

- conducting invasive species management on Service owned and private land in Towner and

Benson Counties by the Devils Lake Wetland Management District Office (ND). Federal funds were matched 2:1 by partners including local weed boards, chemical manufacturers, and the North Dakota State University Extension Service. More than 500 acres of invasive species and other noxious weeds were treated in these counties.

- chemically treating 700 acres of valley oak savannah and mixed riparian forest with the commercially available herbicide "Roundup" to prepare for native grass planting; mowed 750 acres to control competing weeds in riparian restoration sites; and used grazing to control non-native annual grasses in riparian and alkali meadow habitats at Sacramento NWR (CA).
- continuing efforts to control invasive species on Minnesota Valley NWR (MN) through collection and redistribution of approximately 161,550 leafy spurge beetles on the Wilkie and Upgrala units. The Upgrala leafy spurge beetle site continues to produce harvestable amounts of biological control agents that have been provided as source populations to other refuges throughout the region. Purple loosestrife beetles were present on the refuge at previous release sites and continue to be specific and detrimental to the target plant. Spotted knapweed biological control insects are thriving and an additional 1,950 insects were introduced on the Long Meadow Lake unit near Kidder Marsh.

The Service's **fire management** program accomplished 402,091 acres of hazardous fuels reduction projects equaling 143 percent of target acreage in FY 2002. In addition, 51,514 acres of wildland urban interface (WUI) projects were completed, equaling 104 percent of targeted acreage. Overall, the fuels program completed 137 percent of target acres and, most significantly, reported no major injuries. These totals represent the highest percentage of any Department of the Interior fire management bureaus. Prescribed fire is a fundamental NWRS management tool used for habitat manipulation and maintenance as well as a fuel reduction mechanism that helps prevent catastrophic wildfires. Additional related Service activities included fire prevention programs, emergency burned area rehabilitation, and rural fire assistance.

Congress created the **Refuge Roads** program with passage of the *Transportation Equity Act for the 21st Century* (TEA-21) in 1998. Congress limited use of the funds to maintenance of public-use roads and three transportation enhancements (parking lots, roadside rest areas, and bicycle/pedestrian facilities) within the NWRS. During FY 2002, the Federal Highway Administration (FHA) completed an inventory and condition assessment of public-use roads and parking lots within the NWRS and NFHS. The inventory and assessment found that only 23 percent of the 4,800 miles of roads and 24 percent of the 5,000 parking lots were rated to be in good condition.

The Refuge Roads program received more than \$19 million in funding in FY 2002. The program supported 90 projects to improve roads, parking lots and bridges. Two projects were funded by FHA under the Public Lands Highways Discretionary and three projects were funded under TEA-21 as high priority projects.

Congress set aside pristine **Wilderness areas** to preserve their ecological, recreational, cultural, and spiritual values for present and future generations. Approximately 20 percent of the lands and waters in the NWRS, 75 sites, are designated as wilderness areas. These sites encompass 20.7 million acres in 26 states; approximately 18 million acres of NWRS wilderness areas are in Alaska. The Service also administers 21 areas of proposed wilderness, totaling more than 2 million acres in the lower 49 states and 8.6 million acres in Alaska.

The NWRS also contains many other specially designated areas, including National Natural Landmarks, Research Natural Areas and Wild and Scenic Rivers. Congress established the National Wild and Scenic Rivers System to preserve and protect free-flowing rivers that possess "outstandingly remarkable scenic,

recreational, geologic, fish and wildlife, historic, cultural, or other similar values." Designated rivers are administered by one of four federal agencies (Fish and Wildlife Service, National Park Service, Bureau of Land Management, Forest Service) or the states. Ten of these designated river units flow through NWRS. The Service administers 1,051 of these river miles on 8 river units. All but one of these rivers are in Alaska. The Service manages all of these areas to protect their unique values while allowing public access and enjoyment. In FY 2002, these efforts:

- evaluated wilderness management practices and developed science-based adaptive management strategies, using the CCP process, to increase the effectiveness of our wilderness stewardship and address complex refuge management issues. In addition, CCPs were used to identify and evaluate areas within the NWRS that merit recommendation for wilderness or wild and scenic river designation. Integration of these studies within the planning process ensures recommendations are developed in collaboration with local communities and private citizens.
- developed standards for determining the effectiveness of our wilderness management actions and coordinated with other wilderness and wild and scenic river management agencies to provide more information to the public through the activities of the Interagency Wilderness Steering Committee and the Interagency Wild and Scenic Rivers Coordinating Council. Efforts also included the Wilderness Information Network, a web-based technology that provides general wilderness information such as recreational opportunities and hours of operation.

The NWRS hosts 16 other special land designations that share refuge lands, including Ramsar Wetlands of International Importance, Western Hemisphere Shorebird Reserves, Marine Protected Areas, Significant Caves, Critical Habitat for Endangered and Threatened Species, National Trails, and properties on the National Register of Historic Places, among others. These unique resource areas demand special management activities to conserve their unique values.

In FY 2002, the NWRS implemented numerous habitat initiatives, some linked to the habitat objectives and goals of Comprehensive Conservation Plans while others were accomplished through evaluation of ongoing refuge habitat management programs. The following examples illustrate the Service's efforts to maintain the biological integrity, biodiversity, and environmental health of habitats on refuges.

- Through a unique partnership between American Electric Power, The Conservation Fund, and the Service, 7,292 acres of marginal agricultural lands were reforested within the newly acquired Bushley Bayou Unit of Catahoula NWR (LA).
- The Service's Windom Wetland Management District (MN) restored 600 acres of prairie grasses and flowers to provide habitat for grassland birds and nesting waterfowl. In addition, 335 acres of Waterfowl Production Area lands were converted from cool season non-native grasses into a diverse prairie mix using native prairie seed. Increasing plant diversity by using native prairie seed helps improve migratory bird populations by both providing nesting cover, and by increasing the diversity and population of insects, a prime food source for young hatchlings.
- A historically popular and legendary fishery was restored on the Upper Ouachita NWR (LA) this year by installing a water control structure at Steep Bank Creek. A preliminary survey showed the area will once again be an excellent place to fish. This area also provides habitat for bald eagles and other migratory birds and resident wildlife.

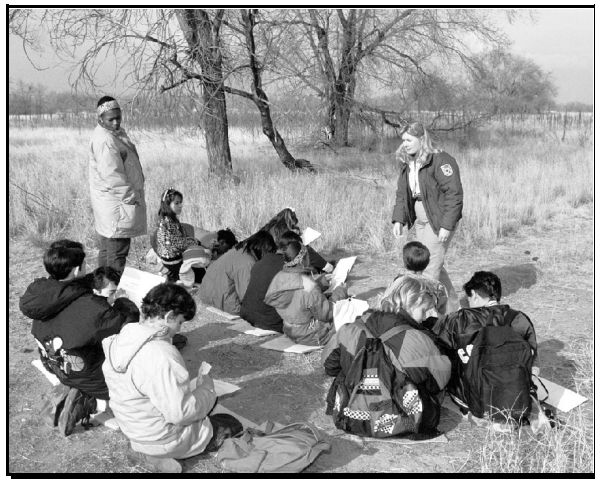
### **Serve People**

This activity encompasses functions contained within the new draft DOI strategic plan to "improve access to appropriate recreation opportunities;" "ensure a quality experience and enjoyment of natural and cultural resources;" "provide for and receive fair value in recreation;" "protect cultural resources;"

and, “protect lives, resources, and properties.” The 540 units of the NWRS and thousands of small prairie-wetlands not only provide prime habitats for wildlife, but also exceptional outdoor experiences for millions of Americans to hunt, fish, observe and photograph wildlife, and learn about our natural world. A diverse constituency of sportsmen's and other conservation organizations, state fish and wildlife agencies, community partners, volunteers and neighbors are helping the NWRS meet its full potential. Now more than ever, the NWRS is an integral part of the federal family of public lands, and plays a critical role in American natural resource conservation and outdoor recreation. Therefore, all the efforts to provide quality wildlife experiences to local communities must include activities to improve public safety and security, while protecting public resources from damage.

Congress, through the *National Wildlife Refuge System Improvement Act of 1997* and the *Volunteer and Community Partnership Enhancement Act of 1998*, realized that experiencing fish and wildlife first-hand can lead to appreciation and involvement in the NWRS and broader community-driven national conservation. The Acts recognized the outstanding outdoor recreational opportunities within the NWRS, including some of the nation's best hunting and fishing. Wildlife-dependent recreation, referred to as the “Big 6” - hunting, fishing, wildlife observation, photography, environmental education, and interpretation - are priority uses of the NWRS. To reach our goal of providing a place where visitors are welcome, in FY 2002 we provided:

- **Quality Wildlife Experiences.** Nearly 38 million people visited refuges in FY 2002. Nearly 2 million came to hunt, almost 6 million to fish, and more than 27 million for interpretation and observation opportunities, with 16 million of them using nature and auto trails. Refuges and waterfowl production areas offered visitors countless opportunities to witness some of the world's most amazing wildlife spectacles amidst breathtaking scenery.
- **Interpretation and Education.** This program established interpretive facilities and activities that enhanced opportunities to view nature and wildlife; informed the public about natural and cultural resources; and provided visitors with information to develop their own interpretation of the need to protect and manage natural and cultural resources. Interpretive facility operations include visitor centers, information desks, kiosks and signs; and activities encompass talks, tours, staffed exhibits, and technical demonstrations. Environmental education provides structured classroom activities for teachers, students, or others; and professional workshops or instructional programs to learn about wildlife viewing, natural resource management, land stewardship, or wildlife recovery and management.



The NWRS and its wildlife have long relied on the power of involved citizens. Conservation organizations helping to build the refuge system, such as Ducks Unlimited, Inc., and the Izaak Walton League, remain essential partners that continue a long history of a shared commitment to conserving our nation's wildlife heritage. These partnerships improve our wildlife conservation skills, which is a constant process that involves seeking involvement from dozens of local groups and individuals. *The Volunteer and Community Partnership Enhancement Act of 1998* gives us new tools and authorities to let the American people share in our wildlife conservation mission and encourages public stewardship.

In FY 2002, activities:

- supported habitat restoration and visitor services partnerships through the Challenge Cost Share Program with \$3.8 million in base funding. Over the years, the NWRS has leveraged these funds to the field, expending more than \$10 million on projects annually. For every dollar spent by a refuge, partners have spent almost two and a half.
- launched a searchable database website of volunteer opportunities nationwide (Volunteer.gov). The initial phase highlights volunteer opportunities for the invasive species program, connecting citizens with efforts in their local geographical area. A partnership with the National Wildlife Refuge Association in this phase attests to a joint commitment to wildlife conservation.
- expanded partnerships with local and national organizations such as, but not limited to, Corporation for National and Community Service, EASI, AARP, RSVP, Experience Works (formerly Green Thumb), and Service Corps of Retired Executives (SCORE).
- continued to encourage growth in community-based support groups, also known as Friends Groups. By the end of FY 2002, more than 225 organizations were building a legacy of wildlife conservation and public service.
- included approximately 32,000 service volunteers. Volunteers contributed 1.2 million hours of service, which is equivalent to nearly 20 percent of all staff work done in the NWRS (Servicewide contributions equate to about 700 full-time employees).



In order to provide quality wildlife experiences for visitors, it is imperative that the NWRS include prevention, enforcement, and protection and security activities to ensure compliance with wildlife laws, refuge regulations and related laws so that: 1) fish and wildlife resources are protected from over harvest, poaching, or other abuse, 2) visitors' security is assured and they can enjoy recreation, interpretation, and environmental education without fear of crime or incident; and 3) government property is secure from terrorist threat and not subject to vandalism, abuse, or destruction. In FY 2002, activities:

- contracted with International Association of Chiefs of Police (IACP) to develop an aggressive deployment strategy to increase the number of full-time refuge law enforcement officer positions; assigned full-time law enforcement officers to those locations with the highest incidence of crime; and ultimately reduced dependence upon collateral-duty law enforcement positions. The National Park Service's Visitor Resource Assessment Program has been used as the basis for the new NWRS Law Enforcement Deployment Model.
- established an integrity unit, as identified in both the IACP assessment report and the Secretary's Law Enforcement Reform Measures. A draft handbook and implementation plan has been developed for this unit. The unit will consist of three positions, a refuge officer, special agent and supervisor, within the Division of Law Enforcement.
- hired 28 new full-time NWRS law enforcement officers.

Protection and management of historical, archaeological, and **cultural heritage** is part of our overall resource stewardship. More than 11,000 archaeological and historical sites have been identified throughout the NWRS, where ancient communities left their "footprints on the landscape". These areas

and artifacts provide a historical record of their relationship with natural resources. Museum collections consist of approximately 2.8 million objects maintained in 150 offices or on loan to more than 200 non-federal repositories, such as museums and educational institutions, for study and long-term care. The NWRS hosts more than 80 sites that are listed in the National Register of Historic Places and 9 National Historic Landmarks. The NWRS makes it a priority to meet Department of the Interior and Native American Graves Protection and Repatriation Act requirements for museum collections.

**Land Protection Planning (formerly Acquisition Planning)**

In FY 2002, the Service's Land Acquisition program supported Land Protection Planning. The Service transferred the planning program to the Land Protection function in Resource Management in FY 2003 to focus resources on planning for existing refuges as well as to realize efficiencies based on consolidating funding with other refuge planning activities. The Service has been developing a process for identifying and prioritizing lands for expansion of the NWRS. This process will ensure that the highest priority lands for conservation will be brought into the system. It will focus on meeting national, regional, ecoregional and local conservation goals for species and habitats and will filter proposals through a series of threshold standards to ensure that the most important projects are approved. Key 2002 Land Protection Planning programmatic accomplishments are summarized at the end of this section.

This activity could potentially contribute to virtually any of the new draft DOI Strategic Plan goals for Resource Protection, Recreation, and Serving Communities. The most direct contribution is toward the intermediate outcome of creating habitat conditions for biological communities to flourish within the Resource Protection goal.

**Comprehensive Conservation Plans (CCPs)**

CCPs ensure that resource stewardship is undertaken in accordance with the law and policies and receives public review. They are the primary vehicle the Service uses to conduct citizen-centered government for the NWRS. These long-term management plans, as well as step-down management plans, rely on public participation during development and give communities a stake in the care of refuges. Public participation provides refuges a powerful alliance in local communities and, in the process, refuges become a radiant force in improving the quality of life beyond its boundaries.

*The National Wildlife Refuge Improvement Act of 1997* mandated that a CCP be completed for every NWRS station (which includes National Wildlife Refuges and Wetland Management Districts) in existence at the time of the Act's passage, within 15 years of the passage of the Act or establishment of the station, whichever comes first. At the time of the Act's passage, there were 551 NWRS stations in existence. Since then, Congress has mandated the Service also complete CCPs for 3 newly established stations (Hanford Reach National Monument, Rocky Flats NWR, Red River NWR) before the 2012 deadline. Thus, 554 NWRS stations require CCPs by 2012. Due to the complex nature of many planning efforts, which involve extensive public involvement, resolution of highly controversial issues, and lengthy internal review and approval procedures, we completed only 19 of the 32 CCPs scheduled for completion in FY 2002. The following stations, 18 NWRs and 1 WMD, CCPs were completed in 2002: Stillwater (NV), Antioch Dunes (CA), Necedah (WI), Bayou Cocodrie (LA), Ten Thousand Islands (FL), Edwin B. Forsythe (NJ), Block Island (RI), John H. Chafee (RI), Ninigret (RI), Sachuest Point (RI), Trustom Pond (RI), Ohio River Islands (WV), Crescent Lake (NE), Seedskadee (WY), Waubay NWR and WMD (SD). The remaining 13 plans are included in the 42 CCPs expected to be completed in FY 2003. A total of 53 CCPs have been completed since the passage of the Act.

This activity, because it provides a comprehensive strategic look at all functions, contributes to the new draft DOI Strategic goals for Resource Protection, Recreation, and Serving Communities.

**Other Funds**

In FY 2002, the Service received \$993,000 for **Salton Sea Recovery** Planning and Bioremediation Planning. This activity directly supports the outcome goal in the new draft DOI strategic plan to “improve health of watersheds, landscapes, and marine resources.” The Salton Sea is a major stopover for millions of migratory water birds along the Pacific Flyway. Numerous fish and avian die-offs in recent years have raised concerns for its overall health as an ecosystem. During die-off events, staff from Sonny Bono Salton Sea NWR (CA) coordinated the multi-agency response efforts; completed daily airboat patrols of the sea to collect affected birds; provided immediate emergency treatment; transported ill birds to rehabilitation facilities; and released healthy birds back to the wild. An aggressive, proactive wildlife disease program has proven to decrease the spread of the diseases, thus decreasing the number of affected birds. The refuge also maintains and operates a pathology and necropsy laboratory for the on-site determination of wildlife disease outbreaks. Service coordination is required for a number of current Salton Sea remediation activities to minimize contaminant and other impacts on habitat quality.

The Salton Sea ecosystem is still in danger and in need of an effective recovery and remediation program. However, recent data indicate that the Service and its partners have successfully minimized the severity of the outbreaks. For example, disease outbreaks resulted in 14,000 total bird deaths in FY 1996. Another outbreak during FY 1999 killed a total 17,500 birds representing 55 different species. Outbreaks that at one time would escalate and cause thousands of avian and fish deaths were detected early and countered aggressively in FY 2002:

- Refuge personnel found 151 California brown pelican and 9 white pelican carcasses as a result of the avian botulism outbreak, and sent an additional 112 California brown pelicans and 9 white pelicans to rehabilitation centers. Of these, 61 percent were released back into the wild.
- Refuge personnel had the lead in addressing disease outbreaks that killed 750 cattle egrets from Salmonella at a nesting colony in the Imperial Valley and approximately 800 eared grebes and ruddy ducks dying on the Salton Sea from Avian Cholera; and, an outbreak of Newcastle Disease in captive chickens near the Salton Sea and Imperial Valley warranted increased monitoring of wild bird populations.

**2003 Performance Goal Estimates**

In FY 2003 President’s budget requested \$268,750,000 for NWRS Operations to fulfill its mission critical objectives. To achieve those objectives the NWRS Operations budget is divided into three program elements, (1) Protect Wildlife, (2) Improve Habitat, (3) Serve People. These elements define our commitment to the stewardship of wildlife and wildlife lands for the citizens of the United States.

**Protect Wildlife**

This activity furthers the new draft DOI strategic plan outcome goal to “sustain biological communities on DOI managed and influenced lands and waters.” Much of our wildlife field efforts are focused on monitoring the status and health of wildlife populations and their habitats. Refuge staff conduct or administer contracted natural resource and cultural resource surveys, inventories and studies; map refuge habitats and cover types; and, collect fish, plant, wildlife and public use data to ensure that refuge management programs are developed and implemented with current natural resource and public use data. These data are key to understanding various fish and wildlife communities on the refuge; managing refuge wildlife and habitats, developing and implementing CCPs; and, facilitating the six priority public uses. Projects funded with the proposed increase are fully described in the appendix. They include \$139,000 to initiate long-term monitoring and management of habitats at the Tualatin Refuge; (near Portland, OR) and \$344,000 to implement the Tetlin Refuge (AK) approved Wildlife Inventory Plan to monitor the health and trends of important subsistence-use wildlife populations, including moose,

caribou, bears, wolves, and fur bearers, in order to make informed management decisions.

Protecting endangered species is a crucial part of refuge management. Support for this important part of the Service's mission will be funded with the proposed increase, including projects such as improving nesting productivity of threatened piping plovers by expanding monitoring, coordination, and protections as part of the Regional Barrier Beach Management Network at Chincoteague NWR (MD/VA). A 1999 pilot project demonstrated that nesting productivity can be doubled in areas with intense monitoring and predator control.

### **Improve Habitat**

This activity furthers the new draft DOI strategic plan by “improving health of watersheds, landscapes and marine resources that are DOI managed or influenced;” “sustaining biological communities on DOI managed and influenced lands and waters;” and, “protecting Natural Heritage resources.” In FY 2003, the NWRS is advancing its role as a model for land management practices to maintain and restore fish and wildlife and their habitats by nominating Land Management and Research Demonstration (LMRD) sites. The LMRD program will implement five principal strategies to:

- demonstrate sound land management techniques that identify, maintain, and/or restore natural processes for sustaining fish and wildlife habitats;
- research, test, and develop new habitat management and restoration techniques;
- communicate and share findings on cutting-edge habitat management and restoration techniques with professional, academic, and private lands management groups, and private landowners;
- foster cooperative partnerships with both public and private audiences; and,
- implement and showcase cutting-edge habitat management and restoration techniques for the benefit of resource managers on and off federal lands.

The Service, in cooperation with various partnering organizations (e.g., the American Bird Conservancy, National Fish and Wildlife Foundation, the International Fish and Wildlife Agencies, The Wildlife Society, The Nature Conservancy, University of Missouri, and the U.S. Geological Survey), has selected 13 LMRD sites throughout the country. Project proposals for future year funding for each site are being developed and will include specific habitat issues, cost-share information and other support commitments from the partners. The following refuges have been selected to serve as LMRD sites:

- Rachel Carson NWR (ME)
- Hanford Reach NWR (WA)
- Bosque del Apache NWR (NM)
- St. Marks (FL) and Carolina Sandhills NWRs (SC)
- White River, Cache River, and Bald Knob NWRs (AR)
- Northern Great Plains NWRs (ND/SD)
- Tetlin NWR (AK)
- Neal Smith NWR (IA)
- Lake Umbagog NWR (NH)
- Balcones Canyonlands NWR (TX)
- Kauai NWR (HI)
- Fergus Falls WMD (MN)
- Alaska Maritime NWR (AK)

Additional resources in FY 2003 will resolve critical habitat-related operational needs of refuges nationwide. Restoration will include historic wetland habitats that were previously drained and converted to agricultural production; areas that were deforested, used for industry or decommissioned from active



military activities; important riparian corridors and deepwater habitats; and significant coastal areas.

The NWRS will enhance habitats for endangered plant communities and improve the biological integrity of unique ecosystems through projects such as restoring and maintaining 12,000 grassland acres and other habitats for sharptailed grouse, prairie chicken, and passerine birds through a combination of grazing, mowing, prescribed burning, and haying at Fort Niobrara NWR (NE); and converting the Mattamuskeet NWRs (NC) program to contract farming to ensure an annual supply of agricultural grains for wintering waterfowl.

In FY 2003, the Service will pursue a national water resources program that ensures the quantity and quality of water for dependent refuge habitats; assists hydrology crucial to all habitat efforts on wetlands; and, ensures availability of critical water supplies for fish and wildlife populations. The Service will address baseline water-quality issues that have significant impacts on fish and wildlife resources, including nutrient loading, sedimentation, and water temperature. Crucial water projects were funded with the increase and include evaluating water developments to determine their effectiveness, use, and impacts on endangered species and refuge flora and fauna at Cabeza Prieta NWR (AZ) and developing secure water supply for managed wetlands which are not part of the Central Valley Project Improvement Act at Sacramento River NWR (CA).

Many refuges pump water in both the spring and the fall to manage water levels that provide quality habitat for migratory, wintering, and nesting birds; and also to prevent major disease outbreaks. In FY 2003 water pumping projects will be initiated on Rainwater Basin WMD (NE), Bowdoin NWR (MT), and the Monte Vista/Alamosa NWR Complex (CO). Another example of a water management project planned for 2003 is at Wheeler NWR (AL) where the Service in cooperation with the Tennessee Valley Authority will gain the ability to pump water year round for wildlife food production benefitting approximately 40,000 waterfowl, 2,000 wading birds and 10,000 shorebirds.

Increased activities on refuges to address **invasive species** will rely in part on a strong coalition of organized citizen volunteers. The NWRS will develop and conduct regional training programs and workshops for volunteers on invasive species identification, surveying, monitoring, and management. Further, volunteers will be provided with materials, supplies, and equipment for training, inventory, and invasive species control work. Partnerships will be established with state and federal agencies, universities, Friends Groups, and the National Wildlife Refuge Association to promote training, network partner organizations, and leverage additional support. In addition, on refuge lands the Service will continue to use a host of integrated pest management techniques, application of chemicals, mechanical and hand removal, prescribed fire, cultural techniques, and biological controls to combat invasive species.

Roughly 20 percent of the NWRS is designated as **wilderness areas**. Wilderness management is different and sometimes difficult due to accessibility challenges. One project specifically dedicated to addressing the resource and visitation needs of wilderness management at Okefenokee NWR (FL, GA) will examine the composition, structure, and functioning within the 353,000-acre wilderness area to promote natural processes. Managing this vast wilderness area to preserve wilderness qualities, support endangered species and provide public recreation requires understanding historical climatic conditions, landscape structure, effects of current management practices, and inventories of fauna and flora species.

### **Serve People**

This activity furthers the new draft DOI strategic plan to “improve access to appropriate recreation opportunities;” “ensure a quality experience and enjoyment of natural and cultural resources;” “provide

for and receive fair value in recreation;” “protect cultural resources;” and, “protect lives, resources, and properties.” Many FY 2003 refuge operations activities are centered around the Centennial of the National Wildlife Refuge System. Commemorating a century of conservation, the Centennial campaign recognizes conservation education as a fundamental means to reach, educate, and involve America's youth and local communities in the conservation of wildlife. In FY 2003, a benchmark year for funding educational and interpretive programs, the Service will:

- continue the Centennial Legacy Program partnership with the National Fish and Wildlife Foundation, which cost-shares projects that promote environmental education and habitat projects on refuges.
- initiate an Environmental Education Needs Assessment for the Refuge system.
- implement the Service's "Education 100" initiative. More than \$5 million worth of cost-shared projects were submitted by refuges in competition for a spot in the top 100 environmental education projects of Refuges.
- continue the Rhythms of the Refuge program, which promotes National Wildlife Refuges as unique educational sites for local students.

The Visitor Facilities Enhancement initiative, new for FY 2003, reinforces the Service's commitment to refuge visitors by enhancing access to outdoor opportunities and improving their quality. Visitor facility enhancements include the construction and maintenance of small-scale facilities such as boat launches, observation decks, hunting and photography blinds, trails, boardwalks and overlooks, fishing piers, and informational signs and kiosks. All of these facilities will be accessible to persons with disabilities. This initiative provides a new way of enhancing outdoor recreational opportunities by linking the maintenance (MMS) and operations (RONS) databases to bundle together small RONS projects (e.g. building a kiosk) with small MMS projects (e.g. re-graveling a trail for visitor use). In FY 2003 these types of projects will include:

- Desert NWRC (NV) - Install visitor contact stations and kiosks; repair wildlife viewing trail and observation deck.
- Oregon Coast (OR) - Construct new parking area, overlook, and interpretive panels; replace old orientation and interpretive panels.
- Balcones Canyonlands (TX) - Construct observation deck, and nature trails to observe endangered species; resurface parking area.
- Las Vegas NWR (NM) - Purchase binoculars and spotting scopes, and resurface parking area.
- Upper Mississippi River (MN, IA, IL) - Construct ADA accessible fishing platforms; resurface parking lots associated with new fishing piers.
- Merritt Island NWR (FL) - Install visitor contact stations and kiosks; replace interpretive displays in visitor center.
- Long Island NWR (NY) - Construct boardwalk, interpretive signs, nature trails, kiosk, etc.; replace existing kiosks and entrance signs.
- Potomac River NWRC (VA) - Construct ADA accessible pavilion, fishing pier, and nature trail; rehabilitate existing nature trail.
- Arrowwood NWR (ND) - Design and purchase new brochures for interpretive trails; restructure old building as a visitor contact station.
- Kenai NWR (AK) - Establish cabin management program for refuge visitors; rehabilitate four public use cabins.
- Tetlin NWR (AK) - Design and build new public access to refuge facilities; rehabilitate four public use cabins.

The Service recognizes the need to provide for increased opportunities to experience wildlife dependent

recreation on refuges. In addition to visitor facility enhancements some projects will provide for public uses during the Centennial year and beyond. For example, the Alamosa and Monte Vista NWR Complex (CO) planned refuge enhancement will respond to public inquiries related to recreation, visitor facilities, and public safety issues. Public interest and use of these refuges is increasing due to their proximity to large populations and the growth of the Monte Vista Crane Festival (the largest wildlife viewing event in Colorado), which attracts visitors from a 1,500 mile radius.

Further, in light of recent terrorism activities against our nation, the Service reassessed the top security needs and plans to provide for the safety of visitors to refuges, as well as employees, through strengthened law enforcement. If people are afforded the opportunity for safe, enjoyable, wildlife-dependent recreation, they are more likely to support a continued legacy of sound stewardship. Building a credible and highly professional law enforcement program to meet this century's huge demands on visitor and resource protection is our priority.

Protection of NWRS visitors and lands is being accelerated through improved law enforcement and investigative activities, and with the addition of 28 new full-time law enforcement officers on NWRS, as well as a national Law Enforcement program specialist and a Chief of the NWRS Law Enforcement program. Hiring for these positions has been initiated and the results of their work will strengthen refuge law enforcement in FY 2003. The NWRS is building an improved, highly trained and professional law enforcement program to protect our communities' citizens and provide a safe environment for students, families, recreationists and other visitors coming to see national treasures on refuges. The Service's refuge law enforcement program is restructuring to provide the safest environment for both Service employees and the public. Many recommended improvements have been completed using existing funds, thus demonstrating that the refuge law enforcement program is a top priority for the bureau. Other FY 2003 efforts include:

- implementing the Secretary's Reform Measures, with a target completion of September 30, 2003. These measures reflect the recommendations of the IACP report in 2000 and the Inspector General's report in 2001, such as reducing the dependence on collateral duty and seasonal officers; developing a Case Management System; developing a deployment strategy.
- utilizing the National Park Service's Visitor Resource Assessment Program as the basis for the new NWRS Law Enforcement Deployment Model.
- continuing to upgrade communication systems to increase the safety of the officer and visitors.
- developing and pilot testing a Field Training and Evaluation Program (FTEP), a 10-week program to provide highly trained, fully functional, positively motivated natural resource law enforcement officers on every refuge.
- developing new policy with the Office of Law Enforcement programs as well as reviewing and updating existing policy.
- developing a career ladder for refuge law enforcement officers with standardized law enforcement position descriptions.
- standardizing the weapon system, a International Association of Chiefs of Police (IACP) recommendation, to increase officer safety and bring the program closer to some nationally accepted standards for law enforcement programs. Standard weapons will be purchased and issued to refuge officers after the officer receives approved transition training on their use.

In the spirit of the *National Wildlife Refuge System Improvement Act* and the *Volunteer and Community Partnership Enhancement Act*, all priority needs of the NWRS are premised on continuing communication and close collaboration with neighbors and partners, especially state fish and wildlife management agencies.

Refuge support includes developing cooperative projects, such as the **Challenge Cost-Share** program, at all levels of government; developing effective volunteer programs and partnerships; and, encouraging establishment of and cooperative work with friends groups and other local and national support groups. Lee Metcalf NWR (MT) lies in the heart of the rapidly developing Bitterroot Valley of western Montana. A CCS Agreement was established between the Service, U.S. Forest Service, Trapper Creek Job Corps Center, Volunteers for Lee Metcalf, and Lunceford Distributing. Because of its urban proximity, high visitation, and extensive environmental education and interpretation programs, the Refuge is uniquely positioned to spread the messages identified in the Refuge Centennial Outreach Implementation Plan to a large audience. The refuge is a geographical focal point for three major celebrations scheduled in the near future, refuge centennial in 2003, 40th anniversary of the refuge in 2003, and Lewis and Clark Bicentennial from 2003-2006. Improvements to the safety, function and appearance of visitor facilities on the refuge are necessary to assure visitors will have a safe and enjoyable experience during special events scheduled for these events.

Under the CCS agreement, cooperators will provide a crew of 4 people for 3 days to repair and improve hiking trails; provide volunteer labor for refuge education and improvement projects; and contribute 40 yards of wood chips to improve wildlife observation trails. In return, with FY 2003 challenge cost share funding, the Service will provide other materials and equipment necessary for the repair and improvement of fences, boundary and regulatory signs, trails, pavement repair, and other facilities. Through these efforts the Service will also strengthen relationships with existing volunteers while fostering opportunities for new volunteers and partnerships within the community.

### **Land Protection Planning** (formerly Acquisition Planning)

The FY 2003 budget transferred \$3,700,000 from the Land Acquisition Management Account to the Resource Management Account for land acquisition planning. This transfer will focus resources on planning for existing refuges as well as some efficiencies based on consolidating funding with other refuge planning activities.

Refuge system guidance requires that a Preliminary Project Proposal (PPP) be developed for acquisition proposals for new refuges. The PPP provides an executive overview of the area's total long-term management and biological and ecological needs and considers how it fits into landscape level plans and the strategic growth of the NWRS. In broad terms, the detailed planning process includes:

- identifying the purpose or need for the action (defining objectives);
- establishing a series of alternatives that could in some significant degree solve the problem or meet the objectives;
- identifying the possible consequences or impacts of each alternative; and,
- determining if the proposed action complies with existing laws, policies, Executive Orders, and other mandates, including the National Environmental Policy Act (NEPA), the Endangered Species Act, and contaminants surveys.

Public participation is an important part of the land acquisition planning process and there are several opportunities for public input. Upon completion of the detailed planning process, a decision is made whether or not to proceed with the land acquisition proposal. If the determination is to proceed, a decision document is produced. This document compiles of all information collected and completed during the detailed land acquisition process, including: a core report or NEPA document; certification of compliance with laws, policies, etc; supplemental reports; and the Land Protection Plan. Key 2003 Land Protection Planning programmatic accomplishments are summarized at the end of this section.

This activity could potentially contribute to virtually any of the new draft DOI Strategic Plan goals for

Resource Protection, Recreation, and Serving Communities. The most direct contribution is toward the intermediate outcome of creating habitat conditions for biological communities to flourish within the Resource Protection goal.

**Comprehensive Conservation Plans (CCPs)**

CCPs have been completed for 53 NWRS stations (National Wildlife Refuges/Wetland Management Districts). With a requested increase in FY 2003 funding of \$1 million, 42 stations are expected to complete their CCPs, these include: Nisqually NWR (WA), San Joaquin River NWR (CA), Illinois River NW&FR (IL), Squaw Creek NWR (MO), Minnesota Valley NWR (MN), Back Bay NWR (VA), Great Dismal Swamp NWR (VA), Lake Umbagog NWR (ME), Arapaho NWR (CO), Lost Trail NWR (MT), Medicine Lake NWR (MT), Sheldon NWR (NV), Sacramento NWRC (CA), Bon Secour NWR (AL), Kenai NWR (AK), Izembek (AK), Detroit River International Wildlife Refuge (MI), Cabeza Prieta NWR (AZ) and Texas Chenier Plains Complex (TX).

This activity, because it provides a comprehensive strategic look at all functions, contributes to the new draft DOI Strategic goals for Resource Protection, Recreation, and Serving Communities.

### Justification of Program Change

Refuge Operations		2004 Budget Request	Program Changes (+/-)
Protect Wildlife	\$(000) FTE	55,544 595	+ 2,222 + 9
Improve Habitat	\$(000) FTE	95,766 1045	+ 6,066 + 17
Serve People	\$(000) FTE	136,872 1220	+ 13,919 + 20
Salton Sea Recovery	\$(000) FTE	997 6	- 1 -
Planning	\$(000) FTE	3,700 -	- -
<b>Total, Refuge Operations</b>	<b>\$(000) FTE</b>	<b>292,879 2,866</b>	<b>+ 22,206 + 46</b>

The FY 2004 budget request for the NWRS Operations is \$292,879,000 and 2,866 FTEs, a net program increase of \$22,206,000 and 46 FTEs from the 2003 President's budget request level.

The Service expects to develop improved performance measures for this program. Measures will be developed as part of the Service's operational plan. The Service is in the process of developing a new operational performance plan that directly aligns all program activities and objectives with the Secretary's four strategic plan mission components – Resource Protection, Resource Use, Recreation, and Serving Communities. The Service's operational plan will contain new long-term and annual performance goals and measures to guide the delivery of Service program implementation, management reform, and budget formulation. The alignment and integration of program performance with budget formulation will provide the context for transparent accountability and the foundation for continual improvement. The Service anticipates completion of a new operational plan by September 2003.

### General Operations (+\$22,206,000)

The President's 2004 budget requests funding for NWRS Operations priorities focus on three primary areas: Protect Wildlife, Improve Habitat, and Serve People. These activities support many of the Resource Protection, Recreation, and Serving Communities goals in the draft DOI strategic plan. Increased funding will foster wildlife populations, restore and maintain the habitats necessary for their survival, and provide safe and accessible wildlife viewing and educational experiences. The following narrative provides detail justification for the NWRS operations increase request and includes \$7 million for 60 of the highest priority Tier One RONS projects to further reduce the operational needs of the NWRS and \$1 million for developing educational and interpretive programs. In addition, the request includes \$1.6 million for NWRS Law Enforcement; \$2 million for the Land Management Research and Demonstration program; \$2.14 million for Invasive Species Management; \$2 million for Comprehensive Conservation Plans; \$3 million for Challenge Cost Share; \$5 million for New and Expanded Refuges; and \$500,000 for Chronic Wasting Disease. Finally, the FY 2004 budget request includes a \$2,034,000 reduction for information technology, travel and transportation.

### Protect Wildlife

The NWRS will accomplish 17 projects (\$2,145,000) that enhance wildlife stewardship on our lands. Collectively, these projects will contribute to the outcome goal in the draft DOI strategic plan to sustain

biological communities. Projects are selected from the highest priority needs as determined by the RONS and generally focus on survey and monitoring, managing and restoring populations, and working with our interagency partners.

**Surveys and Monitoring.** Strategic inventory, monitoring, and evaluation work is critical to achieving the DOI draft strategic goal of sustaining biological communities on DOI managed or influenced lands and waters. For example, data are key to understanding how water level management activities influence various fish and wildlife communities on a refuge, to manage refuge wildlife and habitat populations, and to facilitate wildlife-dependent recreation, referred to as the “*Big 6*” - hunting, fishing, wildlife observation, photography, environmental education, and interpretation. For example, the proposed increase will allow:

- Kofa NWR (AZ) to conduct aerial surveys of desert bighorn sheep to estimate the bighorn sheep population and determine numbers of hunt permits and transplant numbers. This information will assist southwestern states in management efforts to reestablish sheep populations within their historic range.
- Fallon NWR (NV) to study alternatives for securing a more reliable source of water for this refuge to improve habitat, curb the spread of invasive species, and increase recreational use.

**Managing and Restoring Populations.** This activity supports the DOI draft strategic outcome goal to sustain biological communities by pursuing the intermediate strategy of managing populations to self-sustaining levels by actions such as enhancing or reintroducing wildlife populations, managing harvests, controlling diseases, or other measures to allow individual target species or groups improve in status. Efforts to manage and restore wildlife populations are providing high-quality habitats for many species on lands under current federal ownership or under federal land management agreement that may not otherwise survive in the wild. For example, the proposed increase will allow:

- Bowdoin NWR (MT) to provide additional support to the endangered black-footed ferret reintroduction program. UL Bend NWR, one of only two reintroduction sites in Montana, has participated in this program since 1994. In addition, the ferret reintroduction program benefits Service activities to protect black-tailed prairie dogs and the native prairie habitat.
- Carolina Sandhills NWR (SC) and the adjacent Sandhills State Forest to meet endangered species recovery goals for reintroduction of red-cockaded woodpeckers by capturing up to 16 juvenile red-cockaded woodpeckers each year and relocating them to off-refuge sites.

**Working with our Interagency Partners.** Wildlife stewardship could not be successful without working closely with non-governmental agencies, states, local advocacy groups, and individuals in developing wildlife stewardship projects that enhance or restore wildlife populations. For example, the proposed increase will allow:

- coordination of Hatchie Pride, a partnership of more than 25 government agencies, other organizations, landowners, and Hatchie NWR (TN), focusing on restoration of the scenic Hatchie River.
- interagency coordination associated with the establishment of the Detroit River International Wildlife Refuge (MI), which bisects the U.S. and Canada, with a number of interested local communities along the shoreline. Coordination will involve research activities, routine surveys, and public outreach and education between a host of governments, agencies, organizations, and recreational groups.

This request directly supports the DOI draft end outcome goals to sustain biological communities, improve access to appropriate recreation opportunities, and protect lives, resources and property; and intermediate strategies to create habitat conditions for biological communities to flourish, manage populations to self-sustaining levels for specific species, improve capacities to provide access for recreations, and improve public safety and security and protect public resources from damage. The NWRS also plays an important role in supporting the Service's strategic goals for migratory birds and imperiled species and overall mission goals for sustainable fish and wildlife populations.

**Improve Habitat**

The NWRS will accomplish 23 projects (\$2,688,000) that enhance habitat stewardship on our lands. Projects are selected from the highest priority needs as determined by the RONS and generally focus on wetland and upland restoration and moist soil management. This activity furthers the new draft DOI Strategic Plan by "improving health of watersheds, landscapes and marine resources that are DOI managed or influenced," "sustaining biological communities on DOI managed and influenced lands and waters," and "protecting Natural Heritage resources."

**Wetland and Upland Restoration.** Restoration will include historic wetland habitats that were previously drained and converted to agricultural production, deforested, used for industrial production, or decommissioned from active military activities; important riparian corridors and deepwater habitats; and, significant coastal areas. The NWRS will enhance habitats for endangered plant communities and improve the biological integrity of unique ecosystems. For example, the proposed increase will allow:

- Iroquois NWR (NY) to restore and enhance emergent marsh in Mohawk Pool by dividing the impoundment into several smaller management units with increased water control capabilities. Habitat quality in the current 1,400-acre impoundment is rapidly deteriorating due to the eutrophication (aging) process of the marsh. This project will enhance water management capability and yield optimum habitat for significant concentrations of waterfowl, shorebirds, and marsh birds.
- J. Clark Salyer NWR (ND) to support restoration and management of more than 20,000 acres of native mixed-grass prairie and other grasslands and 5,000 acres of forest. Loss of natural forces that preserved the native prairie communities has resulted in woody plant invasion in and deterioration of grassland habitat. The southern portion of the refuge has been recognized as one of only two intact landscapes left in North Dakota. The refuge is designated as a Western Hemisphere Shorebird Reserve Network site and as a Globally Important Bird Area by the American Bird Conservancy.

**Moist Soil Management.** This activity supports the draft DOI strategic goal to sustain biological communities by pursuing the intermediate strategy of creating habitat conditions for biological communities to flourish. Water level manipulation is a proven management tool used to restore and maintain highly functional wetlands to support migratory and resident species. On most refuges this takes the form of adapting management activities to mimic natural events. Water supplies are important to replicating original hydrologic conditions that occurred on wetlands. Many refuges need to pump water in both spring and fall from both natural sources and wells. This is critical for both migratory wintering and nesting birds, and also to prevent major disease outbreaks. For example, the proposed increase will allow:

- Kern NWR (CA) to provide staff to maintain 1,100 acres of moist-soil management units in Unit 14 to fully utilize maximum water allocations established by the Central Valley Project Improvement Act. This unit, when properly maintained with adequate water, provides high quality habitat for large numbers of migrating and overwintering waterfowl, and numerous



wetland associated birds.

- Mingo NWR (MO) to install a water-control structure to draw down water at critical times to ensure continued timber and wetland health of bottomland hardwood forest habitat that supports as many as 125,000 ducks and 40,000 geese wintering on the refuge.

### **Serve People**

This activity furthers the new draft DOI Strategic Plan to “improve access to appropriate recreation opportunities,” “ensure a quality experience and enjoyment of natural and cultural resources,” “provide for and receive fair value in recreation,” “protect cultural resources,” and “protect lives, resources, and properties.” The NWRS will accomplish 20 projects (\$2,187,000) that enhance our ability to serve visitors and protect the resources entrusted to us by the American people. Projects are selected from the highest priority needs as determined by the RONS and focus on opportunities to enhance visitor opportunities on refuges; increase appreciation and involvement in community-driven wildlife conservation; and, enhance prevention, enforcement, protection and security activities to ensure compliance with wildlife laws, refuge regulations and related laws. The proposed increase will allow:

- Swan Lake NWR (MO) to enhance visitor opportunities at this 7,350 acre refuge, which serves as an important migratory stopover for 300,000 snow geese and 100,000 ducks. The project will improve and manage refuge facilities including parking lots, interpretive kiosks, interpretive trails, and water-control structures.
- Sacramento NWR (CA) to provide a full-time law enforcement officer to protect wildlife resources on 6 refuges and 3 wildlife management areas stretching across 11 counties in the Sacramento Valley. The officer will coordinate enforcement activities between federal (Service’s Division of Law Enforcement, FBI), state (California Highway Patrol, California Department of Fish and Game) and local (county sheriff offices) law enforcement agencies to ensure resource protection and visitor safety are maintained.
- Cibola NWR (AZ) to enhance visitor services, provide resource protection and public safety with the addition of an Outdoor Recreation Planner. The refuge is home to several endangered species and species of concern including numerous neotropical migratory birds, butterflies, and amphibians. This project provides expanded visitor programs, ensures resource protection, and preserves the uniqueness of the refuge through education.

### **Environmental Education (+\$1,000,000)**

The Service requests an additional \$1,000,000 to build upon the FY 2003 budget request. The 2003 program serves as a benchmark for developing educational and interpretive programs, and the NWRS will continue to develop core national messages, curriculum, and partners in the interpretation and education fields. We will expand these opportunities for the NWRS to move beyond the individual refuge boundary and engage communities in well-designed conservation education programs. These will not only carry core national messages but also step-down to the local community area surrounding the refuge.

Successful programs require educated and trained specialists. Nearly 340 refuges or two-thirds of the refuges in the system, provide local education, interpretation, and recreation programs. The FY 2004 funding request will increase the number of education opportunities offered to the public, teachers, and students by providing \$928,000 to place seven professional and academically trained education specialists at the following refuges: Oregon Coast NWR (OR), Sequoyah NWR (OK), Detroit River International Wildlife Refuge (MI), Bond Swamp NWR (GA), Wallkill NWR (NY), Bear River Migratory Bird Refuge (UT), and the Yukon Delta NWR (AK). Each of these refuges has active public use programs and a high potential to reach large cross-sections of the population that will support this

important education work. For example, *The Nature of Learning*, the NWRSS new community-based environmental education initiative will be ready for initiating on refuge field stations in FY 2004 to help meet the needs of refuges, local schools and communities. These seven professionally trained specialists will be in a position and have support funding to make this program a huge success in reaching out to youth and the community. The remaining \$72,000 will be used for education grants with partners.

The Centennial Legacy Program, sponsored by the National Fish and Wildlife Foundation, will complement the activities detailed in the requested increase and provide cost sharing opportunities for critical educational and visitor interpretive programs. Demonstrating how popular education and interpretive programs are, refuges throughout the nation generated 102 proposals in just 5 weeks for these matching grant funds. There are 102 community partners ready to join with their local refuge to meet that need and help us build and/or conduct educational programs. In addition, the National Wildlife Refuge System has just completed development of the Education 100 initiative. This inventory of the top educational projects at field stations across the nation includes curriculum programs such as *Earth Stewards*, already in use at a dozen refuges and easily adaptable to refuges throughout the country. Education 100 projects emphasize refuge and community partnerships. Further, the NWRSS Centennial Commission has shown its support and endorsed conservation education as one of its highest priorities. This request supports the DOI end outcome goal to improve access to appropriate recreation opportunities on DOI-managed or partnered lands and waters and the intermediate goal to ensure quality experience and enjoyment of natural and cultural resources.

**Law Enforcement (+\$1,600,000)**

This activity furthers the new draft DOI Strategic Plan to “protect lives, resources, and properties.” This is accomplished by refuge officers who assure public safety, protect cultural and natural resources, and protect government property from theft, vandalism, or other crimes. The President’s 2004 budget requests funding to allow the NWRSS law enforcement program to accelerate compliance with the Interior Secretary’s directive to implement law enforcement reforms throughout the Department. In addition, it allows the program to address issues identified by the International Association of Chiefs of Police and the Inspector General. The NWRSS is enhancing the quality and professionalism of the law enforcement program by updating communications, reporting, weapons, and training standards. A well-run and consistently managed law enforcement program will have a positive effect on our ability to protect visitors and provide officer safety.

The NWRSS has relied heavily on collateral duty officers. This situation makes officers particularly vulnerable in many situations, especially on large refuges where one lone officer is patrolling thousands of acres with no backup officer. To improve our capability to perform quality law enforcement, we will implement recommendations from the Secretary’s Law Enforcement Review Panel Report and the International Association of Chiefs of Police Report, both of which call for the development and implementation of a Zone System and a Field Training and Evaluation Program (FTEP) for the NWRSS Law Enforcement program.

The mission of the FTEP will be to provide highly trained, fully functional, and positively motivated law enforcement officers on every refuge or complex. An average of 36 refuge officers will receive this critical training each year subsequent to their basic training at the Federal Law Enforcement Training Center in Glynco, Georgia. The Service is guaranteeing that new officers coming into the NWRSS law enforcement program will be continuously trained by seasoned, professional law enforcement officers through the FTEP.

The Service has been directed to increase the number of full-time officers and strategically place a smaller dual function force. The NWRSS will begin to use a Zone System model for staffing needs and

strategic placement of officers. The purpose of the Zone System is to centralize the law enforcement program in order to streamline operations, institute accountability and oversight, enhance training and evaluation, achieve the goals of the NWRS, and to promote refuge law enforcement as a national asset, not just a local event or necessity. The Zone System will be initiated in FY 2003, and be integrated with FTEP to provide a comprehensive Law Enforcement program by FY 2004. Staff at refuge stations will receive high-quality oversight and professional law enforcement guidance and assistance from zone law enforcement officers. Zone Officers are seasoned, veteran officers who will provide oversight and technical expertise in the areas of detection, investigation, apprehension, detention and prosecution, which are associated with the enforcement of regulations related to the Service. Further, they will assist refuge managers in developing individual Law Enforcement Plans for the stations and complexes within their zone and conducting periodic law enforcement reviews and inspections. These positions are a critical part of both the Zone System and the FTEP for the NWRS.

This goal directly supports the broad strategic goal of Serving Communities, outcome goal to protect lives and property, and intermediate strategy to improve public safety and security and protect public resources from damage.

#### **Land Management Research and Demonstration (+\$2,000,000)**

The President's 2004 budget requests \$2 million to implement the Land Management Research and Demonstration (LMRD) program. The 13 designated LMRD sites will highlight the latest habitat restoration techniques and develop new techniques through innovative partnerships and information sharing with states, universities, NGOs, federal agencies and the private sector. The resource management techniques and habitat restoration projects will serve as learning tools and training sites for refuge employees and others in the federal, state, and private sector resource management communities. The requested increase will allow implementation of LMRD strategies at the 13 designated sites. Activities include conducting habitat projects, leveraging funding from partners, providing personnel and training, and encouraging outreach of the program. Also, senior biologist positions will be established at LMRD sites to meet the additional challenges and implement the program efficiently.

This increase directly support the DOI draft end outcome goal to sustain biological communities and the intermediate strategy to create habitat conditions for biological communities to flourish.

#### **Invasive Species Management (+\$2,140,000)**

This activity furthers the new draft DOI Strategic Plan outcome goal of sustaining biological communities by pursuing activities to create conditions for these communities to flourish. This will be accomplished by working to reduce adverse effects of invasive species through preventive measures, early detection and rapid response, as well as control/management. The President's 2004 budget requests \$2.14 million to support invasive species management, including Invasive Species Strike Teams.

The NWRS has developed guidance for invasive species early detection and rapid response operations through its National Strategy for Management of Invasive Species. While a minimal amount of rapid response currently occurs at individual sites in the NWRS, no coordinated or effective early detection and rapid response activities have been initiated. Early detection in the invasive species program is critical and relies heavily on inventory and descriptions of the location, status, and spread of invasive species infestations. Trained refuge professionals and volunteers will make up a strong network for the early detection program. Invasive species early detection efforts also require extensive involvement of scientists and local managers from federal, state, and county agencies as well as non-government organizations. The development of rapid response teams to focus on improving response capability and effective control will be essential. Several actions will be required to meet these objectives, including

establishing rapid response teams (Invasive Species Strike Teams) and developing rapid response plans for management of new or satellite infestations identified through the early detection network.

Nine “Invasive Species Strike Team” (ISST) areas have been identified as high-potential sites for successful attacks on invasives within the NWRS. The program goal is to increase the rapid response capability for invasive species management, using a highly trained, equipped, and mobile response force that refuge managers can call on to support control efforts on newly discovered and satellite (“spot fire”) infestations. The teams will provide an emergency rapid response initial attack force for a set of refuges within a wide geographic area. The design of the ISST program is based upon models developed for the National Park Service’s Exotic Plant Management Teams and Interagency firefighter “Hot Shot” crews, with an expansion on these designs to conduct operations on a variety of aquatic and terrestrial invasive species, beyond only plant species.

The proposed \$1 million increase will be used to support invasive species control efforts nationwide and establish Invasive Species Strike Teams at priority focus areas in the National Wildlife Refuge System, and support development of more complex rapid response planning as needed. Funding will support monitoring of 100,000 acres for new infestations and development of six rapid response plans. These teams will eventually support approximately 50 refuges, and have a goal of responding to 1,000 new infestations or satellite populations. The first team will be established in Florida within the Everglades focus area, based at J.N. Ding Darling NWR (FL). A second will serve the Columbia-Yellowstone-Missouri Rivers Focus Area, based at the National Bison Range (MT). The third team will be established in the southwest (Arizona, California, New Mexico and west Texas), based at Imperial NWR (AZ), with a primary focus on operations related to saltcedar (*Tamarisk sp.*) and Giant Salvinia rapid response control. Funding for this strike team will be requested for the majority of the \$640,000 increase in the following paragraph. Partners with these strike teams will include local soil and water districts, county and state agencies, and include close coordination and program-sharing with the National Park Service’s exotic plant management teams, established under their Natural Resource Challenge program.

In addition, the President’s 2004 budget requests \$640,000 to establish an invasives species strike team and support efforts to control saltcedar (*Tamarisk sp.*) and Giant Salvinia, at focus areas in the Southwest. Saltcedar and Giant Salvinia are widely considered two of the top invasive species threats to western ecosystems across the United States, causing particular impact to wetlands, rivers, and other water bodies in arid or semi-arid habitats. Unchecked, Giant Salvinia multiplies rapidly (10-acre impoundment in 2 weeks) and quickly covers the entire surface of lakes and streams with a 10-inch thick mat. Floating mats can be too thick for the sun to penetrate, kill native plants and fisheries, and hamper boat navigation and irrigation facilities. Service partners in the Lower Colorado River corridor, and surrounding areas in Nevada, California and Arizona have focused attention on these invasive species, including implementation of a host of integrated management techniques through bio-control technology. The Service has identified direct and indirect impacts from these invasive species on native wildlife habitats, endangered species, migratory birds, water availability, public recreation, fisheries, and numerous other sensitive areas. These additional funds will allow 50,000 acres to be treated.

Finally, the President’s 2004 budget requests \$500,000 for nutria control efforts, in coordination with the Partners for Fish and Wildlife Program, in the Chesapeake Bay and Southeast Louisiana ecosystems. Nutria, an invasive rodent from South America, have become one of the most destructive invasive mammals infesting every national wildlife refuge along the Gulf of Mexico, particularly infesting areas in Virginia, Maryland, Louisiana, Mississippi, Texas, Alabama, and Florida. Nutria destroy important freshwater marsh habitats and contribute significantly to erosion and the deterioration of water control levees and other structures. The effective control of this animal is critical for refuges to meet their wetland wildlife habitat management objectives. Jointly, the NWRS and Partners program will treat 80,000 acres.

The risk to native fish and wildlife habitats, as well as the local and state economies tied to their natural resources. At least seven national wildlife refuges in Maryland and Virginia in the Chesapeake Bay region are being damaged by nutria infestations and the requested funding will allow nutria control operations, research strategies, and marsh habitat restoration at Blackwater (MD) and Eastern Neck (VA) NWRs (\$300,000). The remaining funds will support efforts within the Southeastern Louisiana National Wildlife Refuges Complex, in the Lower Mississippi River ecosystem at Delta and Sabine NWRs (LA) (\$200,000).

The proposed invasives increase directly supports the DOI end outcome goal to sustain biological communities and the intermediate strategy to create habitat conditions for biological communities to flourish by collaboratively completing projects to restore, enhance, or manage habitats. Within these efforts, activities such as control and management of invasive species will be pursued where interested partners are present.

### **Comprehensive Conservation Plans (+\$2,000,000)**

The President's budget requests funding to accelerate and ensure scheduled completion of Comprehensive Conservation Plans. The Service uses CCPs as the primary vehicle to deliver citizen-centered government for the NWRS and maintain healthy refuge lands. Currently, CCPs are being developed for 152 NWRS stations (NWRs/WMDs). Many of these planning efforts are complex and involve multiple stations, extensive public involvement, and the resolution of highly controversial issues. The proposed increase will allow the Service to initiate 24 of the highest priority CCPs and accelerate the completion of 9 CCPs.

<b>Projected Number of Stations with Completed CCPs</b>					
	<b>2001</b>	<b>2002</b>	<b>2003<sup>1</sup></b>	<b>2004 w/o Request</b>	<b>2004 with Request</b>
Completed (cumulative)	34	53	95	120	129
Underway	Not Available	172	152	149	173
Initiated in FY	Not Available	28	45	39	63
2012 not started	Not Available	329	307	285	252
Total Due 2012 <sup>2</sup>	553	554	554	554	554

<sup>1</sup> These numbers assume the \$1 million increase in the President's budget.

<sup>2</sup> Totals reflect 3 CCPs required to be completed by 2012, but not part of the NWRS at the signing of the *National Wildlife Refuge System Improvement Act of 1997*.

The proposed CCPs increase directly supports the DOI draft outcome goal to improve the health of watersheds, landscapes, and marine resources, and the intermediate strategy to improve information base, resources management, and technical assistance. It provides a comprehensive strategic look at all functions, contributing to the new draft DOI Strategic goals for Resource Protection, Recreation, and Serving Communities.

### **Challenge Cost Share (+\$3,000,000)**

The Service recognizes the value of cooperative approaches to conservation, and requests additional funding to meet expanded opportunities for natural resource restoration partnerships as part of the Secretary's Cooperative Conservation Initiative. With an additional \$3 million for the Challenge Cost Share program, refuges and partners will build on the current program and pursue cost-shared, results-oriented conservation projects consistent with CCI criteria. Further, partners will use innovative means

or practices to address some of the NWRs highest conservation priorities, including restoring native grasslands, invasive species control, and riparian restoration. The NWRS has developed additional initiatives that provide expanded opportunities for natural resource restoration partnerships.

This increase directly support the DOI draft end outcome goal to sustain biological communities and the intermediate strategy to create habit conditions for biological communities to flourish. Through these efforts the Service will also strengthen relationships with existing volunteers while fostering opportunities for new volunteers and partnerships within the community.

**New and Expanded Refuges (+\$5,000,000)**

New and expanded refuges include those refuges that have been established or significantly expanded since the beginning of FY 1999, when Tier One operational priorities were identified. The President's 2004 budget requests funding to provide start-up costs and operating funds for newly established refuges or significant expansions, which helps stabilize the refuges' operational budgets. During 1993-2002, 58 new refuges were added to the system, and 4.7 million acres were acquired for new refuges, new waterfowl production areas, and additions to established refuges. First, we must ensure the safety of visitors and refuge personnel on newly acquired lands. Newly acquired degraded lands often must be restored due to past degradation, agriculture, drainage, or encroachment of invasive species. Even land acquired in good condition requires management to prevent pest plants or animals from becoming established, vegetative succession to an undesirable habitat type, inflow of contaminant-laden water, and other consequences of the modified environments in which refuges are often located. Newly acquired land requires law enforcement to prevent timber trespass, poaching, disturbance of rookeries and other sensitive nesting sites, and other damage to fragile habitats. Biological studies are necessary to evaluate the current wildlife and plant resources, and develop and implement management plans.

The requested funding will support 33 projects at 22 new or expanded refuges, with the majority of needs concentrated in the Northeast, Southeast, and Northwest regions. The request will fund the highest priorities for the Cargill, Midway, and Vieques NWRs, which are taking on significant new lands and/or responsibilities. A full list of projects is included in the appendix. For example, the proposed increase will allow:

- Don Edwards San Francisco Bay NWR (CA) to retrofit and maintain 4,000 acres of commercial salt ponds on refuge property to serve as endangered species habitat. The Cargill corporation, which has operated commercial salt ponds on refuge owned land in South San Francisco Bay, is terminating salt production on some of these lands and making them available for refuge management. These ponds need to be retrofitted with new pumps, tide gates, and levees reconfigured to keep the ponds from continuing to produce wildlife harming salt. Retrofitting these ponds will provide essential habitat for four endangered species, migrating and wintering waterfowl and shorebirds. These ponds serve as the most significant wintering waterfowl area in South San Francisco Bay. Significant numbers of nesting terns and gulls use these ponds.
- Vieques NWR (Puerto Rico) to provide a Park Ranger for resource protection, visitor safety, and interpretive and environmental education following the departure of the U.S. Navy from the west end of Vieques island. The proposed funding will also provide an outreach and education specialist to facilitate the transition to effective Service management. The majority of the public use visits are not wildlife-dependent but relate instead to the recreational use of refuge beaches. This position is needed to provide visitor contact as well as to provide interpretive and educational services.
- Lost Trail NWR (MT) to provide a Refuge Manager to direct habitat management activities and develop a public use program. Lost Trail NWR was established in 1999 and protects more than 9,000 acres of wetland and upland habitat to benefit numerous species like bald eagles, black

- terns, blue grouse, and wolves. The proposed funding will greatly facilitate the development of this refuge, ensure protection of resources, and improve recreational opportunities for the visiting public. Other NWRS lands that will benefit from this project include Swan River NWR and that portion of the NW Montana Wetland Management District north of Flathead Lake.
- Midway Atoll NWR to provide logistical support for aircraft and vessels, including communications links that are crucial to successful operations.
  - Red River NWR (LA) to provide a refuge manager to initiate land management at this newly established refuge, encompassing 50,000 acres of bottomland hardwood, marginal agricultural fields, oxbow lakes, and swamps. A manager is critically needed to complete planning and implement operations and maintenance on this unstaffed refuge. In addition, a permanent staff presence will improve local partnerships. Currently, this refuge is managed through the North Louisiana Refuge Complex where personnel must travel more than 2 hours one way to reach it.

This increase directly contributes to a broad array of goals in the draft DOI strategic plan in the areas of Resource Protection, Recreation, and Serving Communities. Resource protection goals are pursued for natural resources by applying good science to the inventory, monitoring, study, and restoration or improvement of biological communities; restoring, enhancing, or annually managing habitats; correcting problems such as invasive species, wildlife diseases, and reducing or removing impacts of environmental pollutants and contaminants; and managing and protecting heritage resources such as Wilderness, Wild and Scenic Rivers, and numerous other heritage categories. Resource protection goals are also furthered for cultural and historical resources through their identification, protection, management, and interpretation. Recreation goals are achieved through providing public access to allow enjoyment of wildlife dependent recreation and education consistent with protection of fish, wildlife and plant resources; rendering quality experiences that include adequate availability of staff, signs, brochures, etc.; supplying safe and accessible facilities for the public to enjoy these resources; and managing recreation fees in a manner that provides the government with a fair return on investments and visitors with appropriate value for fees paid. Serving communities goals are pursued through collaborative management of wildland fire prevention, response, and recovery, and a refuge law enforcement program that provides adequate protection of visitors, natural and cultural resources, and government property.

**Chronic Wasting Disease (+\$500,000)**

The President's budget requests funding to address chronic wasting disease (CWD) on NWRS lands. CWD is a neurologic disease that occurs in free-ranging cervids (mule deer, white-tailed deer, and elk) in limited geographic areas of the United States and Canada. It is in the family of diseases known as the transmissible spongiform encephalopathies (TSEs) or prion diseases. Other TSEs include scrapie in sheep, bovine spongiform encephalopathy (BSE or mad cow disease) in cattle, and several diseases such as Creutzfeldt-Jacob disease in humans. CWD causes brain lesions that result in progressive weight loss, behavioral changes, and eventually death in affected animals. The disease is 100 percent fatal. CWD was first recognized in 1967 in deer at a captive research facility in Fort Collins, Colorado; however, the disease was not identified as a TSE until 1978. The first reported case in a free-ranging cervid was in 1981 in north-central/northeastern Colorado. The disease had limited distribution in Colorado and Wyoming for decades. However, new outbreaks have occurred in free-ranging wildlife in Nebraska, Wisconsin, the western slope of Colorado, South Dakota, Saskatchewan, Canada, and most recently in New Mexico and Illinois and transmission to South Korea. At this time, no lands administered by the Service are known to have wildlife affected by CWD.

The apparent rapid expansion of CWD has drawn national and international attention to the disease. As the disease spreads, it may well impact sport hunting of ungulates, including the use of recreational hunting as a management tool on refuges. Indications are this disease will be detected in new areas and states across the country, therefore the Service remains concerned cervids testing positive for CWD will be found on or adjacent to refuge lands.

The NWRS has worked with the Service Directorate on the review and update of a joint States, Department of the Interior, and Department of Agriculture strategic plan and associated Implementation Plan to address CWD. Region 6 developed and implemented (Region 3 followed) "Regional Information/Guidance to Address Chronic Wasting Disease of Deer and Elk" on Service lands and other regions will soon follow. Regions 6 and 3 have coordinated with state agencies on collection of animals for testing, and cooperatively worked with USGS-BRD regarding technical assistance to address refuge related CWD issues. Region 6 hosted a joint Service/USGS-BRD national meeting to discuss and outline the protocols needed for Servicewide CWD surveillance and disease contingency plans.

The proposed increase will allow the Service to: 1) develop and implement Servicewide surveillance and disease contingency plans for refuge lands; 2) support logistical needs associated with surveillance and



management activities; and 3) implement our responsibilities of the joint States/DOI/USDA Implementation Plan, including compliance with the National Environmental Policy Act.

This increase directly support the DOI end outcome goal to sustain biological communities and the intermediate strategy to manage populations to self-sustaining levels for specific species through applying good science to the inventory, monitoring, study, and restoration or improvement of biological communities; restoring, enhancing, or annually managing habitats; correcting problems such as invasive species, wildlife diseases, and reducing or removing impacts of environmental pollutants and contaminants; and managing and protecting heritage resources such as Wilderness, Wild and Scenic Rivers, and numerous other heritage categories.

**Travel Reduction (-\$1,231,000)**

The request includes a \$1,231,000 reduction for travel expenses to be accomplished by curtailing unnecessary travel and relocation costs, as well as increased teleconferencing and use of central meeting locations.

The Service employs approximately 8,000 permanent full time staff at approximately 700 field stations supported by seven regional offices and the Washington D.C. headquarters office. Many of the staff transfer from one field location to another or accept assignments at the Washington or regional offices to expand their professional experience or increase the level of responsibility in the organization. Service employees frequently travel to meetings such as professional association national, state, or local chapter quarterly and annual meetings. The Service recognizes that there is significant benefit to be obtained by having employees work at different locations and at increasing levels of responsibility. The proposed decrease will not eliminate the opportunity for relocating, but will increase the time between moves.

Direct, mission related travel and travel associated with training will not be impacted by the proposed reduction. The Service will carefully evaluate policies and procedures related to attendance at meetings and conferences and will institute policies to limit redundancy in attendance.

**IT Reduction (-\$803,000)**

The Department is undertaking significant information technology reforms to improve the management of IT investments, improve the security of systems and information, and realize short and long-term efficiencies and savings. The Department is taking a corporate approach that will include consolidated purchases of hardware and software, and the review of select IT functions including centralized help desks, email support, web services, centralized network management, and coordination of training. The Service estimates a savings of \$6.6 million by participating in these Departmental efforts.

In addition, the Service's request includes specific reductions of \$2 million for operational IT investments by centralizing management of geographic software, implementing desktop standards, and consolidating Service messaging platforms. The NWRS Operations share of this reduction of \$803,000 reflects the anticipated savings from these cost cutting measures and reforms.

# NATIONAL WILDLIFE REFUGE SYSTEM

LAND PROTECTION PLANNING PROGRAM FY 2002				Study	Approved
	State	ACTION	FY 02 <sup>1</sup>	Area <sup>2</sup>	Acreage <sup>3</sup>
<b>Region 1</b>					
Alameda NWR *	CA	Transfer	dd	985	0
Ash Meadows NWR (Land & Mineral)*	NV	Withdrawal	dd	5,360	23,488
Coachella Valley NWR +	CA	Expansion	final/dd	4,860	3,709
Columbia NWR (Eagle Lakes Unit) +	WA	Expansion	final/dd	7,000	29,597
El Toro +	CA	Overlay	draft	1,000	0
Grasslands WMA/Merced NWR +	CA	Expansion	final/dd	49,300	84,550
Hanalei NWR +	HI	Expansion	dd	6	918
Handford Reach Administration Site +	WA	Expansion	final	100	175,758
Humboldt Bay NWR +	CA	Expansion	final/dd	876	9,554
James Campbell NWR +	HI	Expansion	dd	160	321
Marin Baylands NWR +	CA	New	final/dd	31,500	0
Nisqually NWR +	WA	Expansion	final/dd	5,300	9,766
North Delta NWR +	CA	New	final/dd	47,900	0
Ridgefield NWR +	WA	Expansion	draft	585	6,800
Ruby Lake NWR (Ft. Ruby Ranch) *	NV	Exchange	dd	2,286	39,918
San Pablo Bay NWR (Mare Island Unit) +	CA	Expan./Trans.	final/dd	2,689	21,754
Stillwater NWR *	NV	Expansion	final	-255	163,021
Tulare Basin WMA +	CA	New	final	353,670	0
Turnbull NWR +	WA	Expansion	final/dd	40,142	20,726
Umatilla NWR #	WA	Expansion	dd	2,860	29,875
Wapato Lake NWR +	OR	New	final/dd	6,408	0
<b>Region 2</b>					
Buenos Aires NWR +	AZ	Expansion	final/dd	4,300	125,534
North Neches NWR +	TX	New	final/dd	25,000	0
Ozark Plateau NWR +	OK	Expansion	final/dd	12,000	3,000
Texas Chenier Plain Complex EIS +	TX	Expansion	final/dd	137,500	102,626
Willcox Playa NWR +	AZ	New	final/dd	28,000	0
<b>Region 3</b>					
Big Muddy NF&WR +	MO	Unit Delineation	dd		60,000
Crab Orchard NWR +	IL	Expansion	final/dd	5,000	43,878
Detroit River International Wildlife Refuge +	MI	New	final/dd	5,000	0
Glacial Ridge NWR +	MN	New	dd	35,756	314
Grand Kankakee Marsh NWR +	IL/IN	New	dd	30,000	495
Green Bay Islands NWR +	WI/MI	Transfer	final/dd	4,133	2
Lost Mound NWR +	IL	Transfer	dd	13,001	9,440
Marais Des Cygnes +	MO	Expansion	dd	5,000	9,300
Mark Twain NWR Complex +	IA/IL/MO	Expansion	final/dd	60,000	44,000
(Port Louisa, Two Rivers, Great River, Middle Mississippi)					
Mingo NWR +(plus Pilot Knob, Ozark Cave Fish NWRs)	MO	Expansion	final/dd	4,100	21,747
Minnesota Valley NWR +	MN	Expansion	final/dd	50,000	14,000
Necedah NWR +	WI	Expansion	dd	21,000	46,696
NorthernTallgrass Prairie NWR +	IA/MN	delineation & NEPA	dd	77,000	77,000
Shiawassee NWR #	MI	Expansion	dd	170	16,542
Squaw Creek NWR +	MO	Expansion	final/dd	16,700	7,413
<b>Region 4</b>					
Cahaba NWR *	AL	New	dd	3,260	0
Crystal River +	FL	Expansion	dd	57	3,037
Currituck NWR +	NC	Expansion	final/dd	440	15,880
Ding Darling NWR +	FL	Expansion	dd	124,000	8,380
Florida Panther NWR +	FL	Expansion	dd	370,000	26,529
Green River NWR +	KY	New	dd	23,000	0
Mackay Island NWR +	NC	Expansion	final/dd	920	8,900
Mattamuskeet NWR +	NC	Expansion	final/dd	85,600	50,180
Mountain Longleaf NWR +	AL	Transfer	dd	15,000	0
Pocosin Lakes NWR +	NC	Expansion	final/dd	156,200	93,101
Red River NWR *	LA	New		50,000	0
Rio Encantado NWR +	PR	New	final/dd	20,000	0
Roanoke River NWR +	NC	Expansion	final/dd	44,600	33,000
Southern Pines NWR +	NC	New	final/dd	32,000	0
Swanquarter NWR +	NC	Expansion	final/dd	37,711	16,411
<b>Region 5</b>					

**NATIONAL WILDLIFE REFUGE SYSTEM**

LAND PROTECTION PLANNING PROGRAM FY 2002				Study Area <sup>2</sup>	Approved Acreage <sup>3</sup>
	State	ACTION	FY 02 <sup>1</sup>		
Accokeek Creek NWR #	VA	New	dd		
Cape May NWR *	NJ	Expansion	dd	3,300	17,230
Eastern Shore of VA NWR +	VA	Expansion	final/dd	6,500	1,431
Edwin B. Foysythe NWR *	NJ	Expansion	dd	17,000	58,886
Lake Umbagog +	NH/ME	Expansion	final/dd	50,000	19,686
Petit Manan NWR Complex +	ME	Expansion	final/dd	15,800	7,459
Rhode Island NWR Complex *	RI	Expansion	dd		3,040
John H. Chafee, Sachuest Point, Truston Pond					
Ninigret, Block Island NWR's					
Region 6					
Baca NWR +	CO	New	final/dd	92,500	0
Charles M. Russell NWR (cabin exchange) +	MT	Exchange	dd	25,000	1,100,000
Ft. Niobrara NWR (State Land Exchange) *	NE	Exchange	dd	440	72,598
Region 7					
Adak NWR +	AK	Exchange	dd	46,226	
Alaska Penisula NWR +	AK	LPP <sup>4</sup>	dd	1,395,000	4,359,000
Becharof NWR +	AK	LPP <sup>4</sup>	dd	1,171,000	1,171,000
Kanuti NWR +	AK	LPP <sup>4</sup>	dd	1,635,000	1,635,000
Kodiak/Koniag NWR +	AK	Exchange	dd	189	
Newtok +	AK	Exchange	dd	21,427	
Nikoiski +	AK	Exchange	dd		
Nima +	AK	Exchange	dd	23,636	
Shumagin +	AK	Exchange	dd	18,000	
Sitkanik Island +	AK	Exchange	dd	1619	
Women's Bay +	AK	Exchange	dd	26.45	
Yukon Delta NWR +	AK	LPP <sup>4</sup>	dd	26,291,000	26,291,000
Notes					
<sup>1</sup> FY Status Defined		FY03 Project Current Status			
draft - PPP approved, planning underway		+ Project Ongoing			
final - planning mostly complete, surnaming		# Project Dropped			
dd - plan approved by Regional Director, forwarded to WO		* Project Completed			
<sup>2</sup> Area being studied for inclusion in expansion/new refuge					
<sup>3</sup> Acreage in existing approved boundary. Not applicable for Exchanges due no increase in refuge size.					
<sup>4</sup> In Alaska, LPPs are completed for the entire refuge; all inholdings are evaluated; not all will be pursued.					

**NATIONAL WILDLIFE REFUGE SYSTEM**

LAND PROTECTION PLANNING PROGRAM FY 2003				Study Area <sup>2</sup>	Approved Acreage <sup>3</sup>
	State	ACTION	FY 03 <sup>1</sup>		
<b>Region 1</b>					
Coachella Valley NWR	CA	Expansion	final/dd	4,860	3,709
Columbia NWR (Eagle Lakes Unit)	WA	Expansion	final/dd	7,000	29,597
Ellicott Slough NWR	CA	Expansion	draft/final	312	170
Grasslands WMA/Merced NWR	CA	Expansion	final/dd	49,300	84,550
Hanalei NWR	HI	Expansion	dd	6	918
Humboldt Bay NWR	CA	Expansion	final/dd	876	9,554
James Campbell NWR	HI	Expansion	dd	160	321
Marin Baylands NWR	CA	New	final/dd	31,500	0
Nisqually NWR	WA	Expansion	final/dd	5,300	9,766
North Delta NWR	CA	New	final/dd	47,900	0
San Pablo Bay NWR (Mare Island Unit)	CA	Expan./Trans.	final/dd	2,689	21,754
Seal Beach NWR	CA	Expansion	draft	92	911
Tulare Basin WMA	CA	New	final	353,670	0
Turnbull NWR	WA	Expansion	final/dd	40,142	20,726
Wapato Lake NWR	OR	New	final/dd	6,408	0
<b>Region 2</b>					
Aransas NWR	TX	Expansion	draft	8,000	110,469
Buenos Aires NWR	AZ	Expansion	final/dd	4,300	125,534
North Neches NWR	TX	New	final/dd	25,000	0
Ozark Plateau NWR	OK	Expansion	final/dd	12,000	3,000
Texas Chenier Plain Complex EIS	TX	Expansion	final/dd	137,500	102,626
Willcox Playa NWR	AZ	New	final/dd	28,000	0
<b>Region 3</b>					
Crab Orchard NWR	IL	Expansion	final/dd	5,000	43,878
Detroit River International Wildlife Refuge	MI	New	final/dd	5,000	0
Green Bay Islands NWR	WI/MI	Transfer	final/dd	4,133	2
Big Muddy NF&WR	MO	Unit	dd		60,000
		Delineation			
Marais Des Cygnes	MO	Expansion	dd	5,000	9,300
Mark Twain NWR Complex: (Port Louisa, Two Rivers, Great River, Middle Mississippi)	IA/IL/MO	Expansion	final/dd	60,000	44,000
Mingo NWR (plus Pilot Knob, Ozark Cave Fish NWRs)	MO	Expansion	final/dd	4,100	21,747
Minnesota Valley NWR	MN	Expansion	final/dd	50,000	14,000
NorthernTallgrass Prairie NWR	IA/MN	delineation & NEPA	dd	77,000	77,000
Squaw Creek NWR	MO	Expansion	final/dd	16,700	7,413
<b>Region 4</b>					
Currituck NWR	NC	Expansion	final/dd	440	15,880
Ding Darling NWR	FL	Expansion	dd	124,000	8,380
Grand Bay NWR	MS	Expansion	draft	4,800	14,700
Mackay Island NWR	NC	Expansion	final/dd	920	8,900
Mattamuskeet NWR	NC	Expansion	final/dd	85,600	50,180
Pocosin Lakes NWR	NC	Expansion	final/dd	156,200	93,101
Red River NWR	LA	New		50,000	0
Rio Encantado NWR	PR	New	final/dd	20,000	0
Roanoke River NWR	NC	Expansion	final/dd	44,600	33,000
Savannah NWR	SC/GA	Expansion	draft	1,200	27,757
Southern Pines NWR	NC	New	final/dd	32,000	0
Swanquarter NWR	NC	Expansion	final/dd	37,711	16,411
<b>Region 5</b>					
Eastern Shore of VA NWR	VA	Expansion	final/dd	6,500	1,431
Lake Umbagog	NH/ME	Expansion	final/dd	50,000	19,686
Ohio River Islands NWR	WV/PA/KY	Expansion	final/dd	5,400	5,503
Petit Manan NWR Complex	ME	Expansion	final/dd	15,800	7,459
Rachel Carson NWR	ME	Expansion	draft/final	15,000	7,817
Sunkhaze Meadows NWR (South)	ME	Expansion	final/dd	16,000	11,493
<b>Region 6</b>					
Baca NWR	CO	New	final/dd	92,500	0
Charles M. Russell NWR (cabin exchange)	MT	Exchange	dd	25,000	1,100,000

LAND PROTECTION PLANNING PROGRAM FY 2003				Study Area <sup>2</sup>	Approved Acreage <sup>3</sup>
	State	ACTION	FY 03 <sup>1</sup>		
<b>Region 7</b>					
Adak NWR	AK	Exchange	dd	46,226	
Alaska Peninsula NWR	AK	LPP <sup>4</sup>	dd	1,395,000	4,359,000
Becharof NWR	AK	LPP <sup>4</sup>	dd	1,171,000	1,171,000
Kanuti NWR	AK	LPP <sup>4</sup>	dd	1,635,000	1,635,000
Kodiak/Koniag NWR	AK	Exchange	dd	189	
Newtok	AK	Exchange	dd	21,427	
Nima	AK	Exchange	dd	23,636	
Shumagin	AK	Exchange	dd	18,000	
Sitkanik Island	AK	Exchange	dd	1619	
Women's Bay	AK	Exchange	dd	26.45	
Yukon Delta NWR	AK	LPP <sup>4</sup>	dd	26,291,000	26,291,000
<b>Notes</b>					
<sup>1</sup> FY Status Defined					
draft - PPP approved, planning underway					
final - planning mostly complete, surmounting					
dd - plan approved by Regional Director, forwarded to WO					
<sup>2</sup> Area being studied for inclusion in expansion/new refuge					
<sup>3</sup> Acreage in existing approved boundary. Not applicable for Exchanges due no increase in refuge size.					
<sup>4</sup> In Alaska, LPPs are completed for the entire refuge; all inholdings are evaluated; not all will be pursued.					

## FY 2004 NWRS Highest Priority RONS List

R1	160	Huleia NWR	<p>Provide a wetland biologist to develop and manage moist soil impoundments that are critically needed to provide habitat for Hawaii's four endangered waterbirds. Due to the success at nearby Hanalei wetland, additional wetlands are needed to support endangered waterbirds. The successes at Hanalei and other Hawaiian wetland refuges have proven that with additional habitat and proper management the endangered waterbirds may someday be removed from the endangered species list.</p> <p>MEASURES: 10 new acres will be managed</p>
R1	205	San Luis NWR	<p>Expand public use facilities to accommodate a rapid rise in refuge visitation that is beginning within California's San Joaquin Valley. The project will install visitor kiosks, hiking trails, photo blinds, observation towers and public hunting areas within the 4,000-acre West Bear Creek Unit, recently restored to wetland and upland habitat via a \$2.0 million dollar multi-partnered North American Wetlands Conservation Act grant.</p> <p>MEASURES: 20000 new visitors will be served; 25000 existing visitors will be better served; 100% will support the top 6 priority public uses</p>
R1	129	Sacramento NWR	<p>Provide a full-time law enforcement officer to protect wildlife resources on six refuges and three wildlife management areas stretching across 11 counties in the Sacramento Valley. A Law Enforcement Officer is critical to reduce violations by conducting routine patrols at public use facilities such as the auto tour, and in the waterfowl hunting area and closed areas. Resource protection and visitor safety are insufficiently covered by collateral duty law enforcement officers. Recurring problems include waterfowl hunting violations, trespass, vandalism, and marijuana cultivation. This position will coordinate enforcement activities with federal (Fish and Wildlife Service Div. of Law Enforcement, FBI), state (California Highway Patrol, California Dept. of Fish and Game) and local (county sheriff offices) law enforcement agencies to ensure resource protection and visitor safety are maintained.</p> <p>MEASURES: 200 incidents will be documented; 2000 other public contacts will be made; 60 cases will be assisted; 50 NOV's and State citations will be issued; 75 written warnings will be issued</p>
R1	128	Coachella Valley NWR	<p>Provide a biologist to identify the various habitat types and associated wildlife species within the Coachella Valley NWR. This 4,000 acre refuge is the last remaining stronghold for the threatened Coachella Valley fringed-toed lizard, the endangered Coachella Valley milk vetch and numerous other desert dwelling species. Biological information needs to be gathered to understand how various types of development within the Coachella Valley will impact the continued existence of many wildlife species. Information gathered by this project will aid in efforts to provide for existing wildlife on this refuge and develop and maintain quality wildlife habitat over the next 20 years.</p> <p>MEASURES: 10 wildlife surveys will be conducted; 5 habitat surveys will be conducted</p>
R1	168	Ash Meadows NWR	<p>Restore five desert springs and stream brook channels at Point of Rocks, Crystal, Big, Bradford and School Springs. These five springs were altered and degraded by agricultural use, mining, and development prior to the establishment of the refuge. The springs provide critical habitat for three endangered fish and three threatened plants, and represent a major component of the Ash Meadows NWR which is widely known for its unique species and is recognized as a Wetland of International Importance. This project will increase the likelihood for recovery of fish and plant populations and for removing these species from the endangered species list.</p> <p>MEASURES: 100 refuge wetland acres will be restored</p>

R1	272	Sheldon NWR	<p>This project is to remove feral horses and burros from the refuge in accordance with an approved plan. Horses and burros are seriously damaging springs, riparian zones, and other critical habitats for over 270 native animal species. An approved management plan for these invasive species provides for removal of feral horses and burros and surveys and monitoring studies to document damage, but staff time and funding are not available for long-term capture, care, and handling of a large number of animals or the required surveys and studies. Because statutory limitation prevents the Fish and Wildlife Service from gathering feral horses by aircraft or motor vehicles, horses must be captured by horseback, an extremely costly and inefficient process.</p> <p>MEASURES: 1,250 mammals will be removed</p>
R1	119	Kern NWR	<p>Provide a maintenance worker to assist management of 1,100 acres of moist soil management units on Kern NWR to fully utilize maximum water allocations established by the Central Valley Project Improvement Act. Unit 14 has never been subject to consistent water management and therefore does not provide suitable food and cover for migratory waterfowl and waterbirds. Daily monitoring of water levels in the winter months will maintain suitable water depths and spring and summer irrigations will foster suitable food and cover growth and density in preparation for fall flooding. This unit, when properly maintained and with adequate water, will provide high quality habitat for large numbers of migrating and overwintering waterfowl, and a host of other wetland associated birds. Control of invasive species associated with this project will provide additional habitat benefits.</p> <p>MEASURES: 1100 new acres will be managed</p>
R2	128	Brazoria NWR	<p>This project will establish an entry level Refuge Operations Specialist position to improve and expand habitat management activities and resource protection through law enforcement, conservation easement monitoring, fire management, and overall administration of refuge public use programs. Current staffing at this location is inadequate to meet needs for natural and cultural resource management and visitor programs. This trainee position will provide the incumbent with a full spectrum of refuge management and program administration experiences.</p> <p>MEASURES: 64000 existing acres will be managed more effectively</p>
R2	60	Cabeza Prieta NWR	<p>Improve visitor services and environmental education on the refuge with a part-time Outdoor Recreation Planner position. Spanning 860,000 acres of Sonoran Desert with wilderness, endangered species, and unique cultural attractions, Cabeza Prieta NWR maintains a vast potential for interpretive and outreach efforts for visitors in and around the surrounding community. This project will help sustain current activities and allow for program expansion to meet the increasing demand. Specific improvements will be in the areas of public use, public and local community outreach, volunteers, wilderness awareness, and environmental education programs. Increased public awareness of border issues concerning conservation of international natural and cultural resources will be an additional benefit.</p> <p>MEASURES: 10000 new visitors will be served; 10000 existing visitors will be better served; 100% will support the top 6 priority public uses</p>
R2	24	Kofa NWR	<p>Conduct aerial survey of desert bighorn sheep on Kofa NWR. Funds are required to contract helicopter services for the surveys. These surveys are necessary to determine bighorn sheep population estimates. These estimates provide population parameters from which hunt permits and transplant numbers are determined. Without this survey we cannot properly manage the refuge bighorn sheep population and assist southwestern states with their management efforts to reestablish sheep populations within their historic range.</p> <p>MEASURES: 1 wildlife surveys will be conducted</p>

# NATIONAL WILDLIFE REFUGE SYSTEM

R2	110	Tishomingo NWR	<p>Hire an assistant manager to provide administration and planning assistance to the refuge manager and provide necessary biological support for habitat management programs. The responsibilities of this position would include law enforcement, visitor services, biologic surveys and refuge administration. This position has been identified as essential to proper management of this refuge's resources.</p> <p>MEASURES: 1 wildlife survey will be conducted; 1 habitat survey will be conducted</p>
R2	124	Little River NWR	<p>Provide a full-time refuge officer to protect refuge resources and assist visitors. The bottomland hardwood forest on the refuge is the best habitat of its kind remaining in Oklahoma. It is a critical part of migratory bird plans for the Arkansas/Red Rivers Ecosystem. Historical uses on the refuge include clear-cutting hardwood timber, open range grazing of cattle and hogs, and hunting with little regard to game laws. McCurtain County has been identified as a high drug use and manufacturing area; and state, county, and local authorities receive federal funds to help fight drug trafficking. Current collateral duty officers patrol the refuge for non-compliant public use activities. However, to address the problems of historical uses and drugs that are serious/chronic violations, the refuge needs a full-time law enforcement officer to improve operations, surveillance, and cooperation with other law enforcement officials.</p> <p>MEASURES: 30 incidents will be documented; 130 other public contacts will be made</p>
R2	108	Cibola NWR	<p>Enhance visitor services, provide resource protection, and provide for public safety with the addition of an Outdoor Recreation Planner. Cibola NWR is home to several endangered species and species of concern including neotropical migrants, butterflies, and amphibians. This project will provide the refuge with expanded visitor programs, interpretation and educational opportunities, and resource protection through education; preserve the uniqueness of the refuge; reduce illegal hunting activities; and reduce off-road vehicle use that has damaged unique riparian habitat. This project will complement current management plans in cooperation with the Corps of Engineers to better manage river flows designed to enhance riparian habitat along the Colorado River.</p> <p>MEASURES: 5000 new visitors will be served; 30000 existing visitors will be better served; 100% will support the top 6 priority public uses</p>
R3	60	Litchfield WMD	<p>Provide a part time tractor operator to improve the capability to establish and maintain high quality wildlife habitat. This position is critical to successful completion of our expanded efforts to restore cropland and low quality grasslands to native grassland or "prairie". Planting of a seven grass species mix with a diverse component of forbs greatly increases the effort needed to seed and care for the tract during the first three years following seeding. Extensive mowing will be needed due to decreased chemical use mandated by the planting of forbs. The planned increase in acreage converted annually will also demand this position to ensure timely seeding during the short spring window. Litchfield WMD manages over 38,000 acres of fee and easement lands that provide many benefits to a variety of migratory waterfowl, songbirds, and other wildlife.</p> <p>MEASURES: 300 refuge acres will be restored; 10 off-refuge acres will be restored</p>



R3	146	Detroit River International Wildlife Refuge	<p>The Detroit River International Wildlife Refuge intersects the US and Canada and encompasses a number of communities and interests along the US and Canadian shoreline. This project is designed to provide for interagency coordination associated with the establishment of this refuge. There will be involvement with a host of governments, agencies, organizations, and recreational groups. Interaction with these parties will be required to share information, resolve problems, develop cooperative efforts, and manage species and habitats. Coordination activities will involve research studies, routine surveys, and public outreach and education efforts. These coordination activities will require attendance at various meetings and conferences both in the U.S. and Canada.</p> <p>MEASURES: 500 acres will be affected; 25% effort will be for uplands; 50% effort will be for wetlands; 25% effort will be for deepwater/riverine habitats; 2 activities captured</p>
R3	103	Swan Lake NWR	<p>These funds will improve visitor opportunities at the refuge by allowing for improvement and management of refuge facilities including parking lots, interpretive kiosks, interpretive trails, and water control structures. It is important to provide a quality experience for visitors to this 7,350 acre refuge which serves as an important migratory stopover for 300,000 snow geese and 100,000 ducks. Improved attention to habitat management activities will provide for enhanced wildlife viewing opportunities for visitors.</p> <p>MEASURES: 3000 new visitors will be served; 30000 existing visitors will be better served; 100% will support the top 6 priority public uses</p>
R3	103	Iowa WMD	<p>Provide a biological technician to establish local prairie forb nursery needed to restore the natural diversity of plants to this area. The project will include purchasing local origin seed, providing herbicide, and contract planting for establishing .5-10 acre production plots for 15 species of locally bred native prairie forbs. Production plots will be established on suitable waterfowl production areas or state wildlife management areas. The project will also enhance species diversity on established grasslands. This project will advance the Service's excellent partnership with the Iowa Department of Natural Resources while enhancing state and federal habitat within Iowa's prairie pothole region.</p> <p>MEASURES: 640 refuge acres will be restored</p>
R3	54	Mingo NWR	<p>Install an additional water control structure on main ditch 11 so that the refuge will be able to draw water down to required levels. The existing control structure was set at an elevation which does not allow for adequate draw down to relieve the water from bottomland hardwoods. This bottomland hardwood system is one of the last remaining in the state and as such is critical habitat for many species of mammals and invertebrates, and provides for essential habitat for migratory birds in the spring and fall. The ability to adequately draw down water at critical times will ensure continued timber and wetland health. As many as 125,000 ducks and 40,000 geese winter on Mingo Refuge.</p> <p>MEASURES: 6000 existing acres will be managed more effectively</p>
R3	120	Horicon NWR	<p>Provide a maintenance worker to improve wetland management through prescribed burning, mowing, diking, water level management, and the operation and maintenance of an existing dike, ditch and pumping system. To provide the best possible wetland habitat, the refuge actively manages over 15,000 acres of high quality wetlands. Horicon National Wildlife Refuge is a Wetland of International Importance and a Globally Important Bird Area. The 32,000 acre marsh, jointly managed with the Wisconsin Department of Natural Resources, is also an important migration stop for waterfowl, migratory birds and up to 300,000 Canada geese.</p> <p>MEASURES: 15,000 existing acres will be managed more effectively</p>

R3	130	Windom WMD	<p>Purchase interpretive displays for the new administrative center. This facility includes a Visitor Contact Area, Environmental Education room and offices for Windom Wetland Management District staff. The center is located on the edge of Windom, the Cottonwood County seat, and only 15 miles from Highway I-90. Interpretive displays are needed to tell the Tallgrass Prairie Ecosystem story to the visiting public and school science classes. This site provides outstanding opportunities for environmental education and interpretation. This Waterfowl Production Area has remnant native prairie, restored uplands, oak savanna and restored wetlands with water level control capabilities.</p> <p>MEASURES: 3000 new visitors will be served; 100 existing visitors will be better served; 90% will support the top 6 priority public uses; 10% will support non-priority public uses</p>
R4	130	Noxubee NWR	<p>The ability to manage water levels is critical to the mission of Noxubee refuge. Water management is the primary means by which refuge staff provide quality habitat for migratory waterfowl, breeding water birds, and wintering eagles. It is also critical to managing fish populations, including special concern species such as paddlefish, in addition to sport fish species. Lack of operation and management of water management structures and facilities caused subsequent maintenance projects which could have been avoided if regular water management was enabled. This project will permit regular and efficient water management to benefit a wide range of wildlife species. The 48,000 acres Noxubee refuge contains the most extensive bottomland hardwood forest in eastern Mississippi.</p> <p>MEASURES: 6000 existing acres will be managed more effectively</p>
R4	139	Hatchie NWR	<p>Provide a biologist to conduct needed surveys on Hatchie refuge and easement properties, as well as coordinate activities of Hatchie Pride, a partnership of 25+ government agencies, organizations, and land owners. The 9,400 acre Hatchie refuge, bisected by Interstate 40 and its 18 million vehicles per year, has a staff of only four people and no biologist. Important on-refuge surveys and monitoring goes undone. The progressive Hatchie Pride project focuses on restoration of the Hatchie Scenic River, which flows through the refuge and is the last unchannelized river of its type in the lower Mississippi River Valley. The river's main tributaries are channelized and are "choking" the system with 19 million tons of silt per year (a dump truck load every 13 seconds). The refuge is experiencing losses of up to 100 acres of forest per year as a result. Given other basic habitat and public use needs that must be met by the existing small staff, no employees are available to maximize the ability of this project to benefit the refuge.</p> <p>MEASURES: 10000 refuge wetland acres will be restored; 100000 refuge wetland acres will be created</p>
R4	54	Carolina Sandhills NWR	<p>This project is designed to allow the refuge and the adjacent State Forest to meet endangered species recovery goals for reintroduction of red cockaded woodpeckers. Up to 16 juvenile red-cockaded woodpeckers will be captured each year and relocated to off refuge properties or new sites on the refuge. Carolina Sandhills NWR has entered into a cooperative agreement with The Nature Conservancy, William and Mary Center for Conservation Biology, and the Virginia Department of Game and Inland Fisheries to relocate juvenile red-cockaded woodpecker to Piney Grove Nature Preserve in Virginia. Pine Grove is the only remaining population of woodpeckers in Virginia and marks the northernmost extent of the red-cockaded woodpeckers range. Carolina Sandhills NWR has the only population of endangered red-cockaded woodpeckers in the refuge system large enough to support a donor population. Goals include preventing the loss of small populations by increasing the number of potential breeding pairs and reducing demographic isolation among groups and sub populations. To date, 51 juvenile red cockaded woodpeckers have been relocated to other properties. Birds will also be moved to unoccupied clusters or new clusters within Carolina Sandhills NWR and Sandhills State Forest.</p> <p>MEASURES: 40 birds will be released</p>

R4	106	North Louisiana Wildlife Refuge Complex	<p>Improve habitat and wildlife management on the North Louisiana Refuges Complex (four refuges and a water management district) by accomplishing a number of needed management activities such as invasive water hyacinth control; monitoring of endangered red-cockaded woodpeckers and inventory of timber stands in which they are found; increasing beaver control practices; monitoring bottomland hardwood restoration success; and prescribed fire. Additionally, refuge staff are increasing nesting opportunities for red-cockaded woodpeckers by installing nest boxes in trees. This will allow expansion of this endangered population of birds. These actions are needed to continue to effectively manage the refuges to benefit native plants and wildlife and migratory species.</p> <p>MEASURES: 5000 refuge wetland acres will be restored; 500 refuge wetland acres will be created</p>
R4	86	Mathews Brake NWR	<p>Control explosive growth of the invasive lotus weed on a 1,800 acre lake that is the centerpiece of the 2,500 acre Mathews Brake refuge, a nationally-known fishing and waterfowl hunting lake that is one of the few remaining tracts of bottomland hardwood forest in the Mississippi Delta. Approximately 200 species of songbirds, shorebirds, waterfowl, wading birds, and other groups of wildlife species currently use this refuge whose habitat is deteriorating with the expansion of area of the invasive lotus weed, a large floating plant that covers aquatic habitats. These habitats are important to a wide range of wildlife species and thousands of refuge visitors. Several wildlife-oriented recreational groups have expressed interest in cost-sharing the control of this noxious plant.</p> <p>MEASURES: 1200 acres will be treated; 1200 acres infested by target species; 1200 acres will be treated chemically</p>
R4	59	Overflow NWR	<p>Implement intensive beaver control activities on Overflow National Wildlife Refuge. This project would remove all beaver dams that negatively impact hundreds of acres of green timber and adjacent privately-owned land. Current funding provides inadequate resources to deal with this problem. Program implementation will result in additional protection being provided to imperiled bottomland hardwood forests at this station. These forests, perhaps the most productive wildlife producers in the United States, have been impacted severely by high beaver infestations with over 2,500 acres totally lost in the past five years. Migratory songbirds such as hooded warbler and yellow-billed cuckoo and resident wildlife such as white-tailed deer, bobcat and squirrels will benefit from this habitat protection project.</p> <p>MEASURES: 100 mammals will be removed</p>
R4	118	Cedar Island NWR	<p>Provide a biological technician to assist a wildlife biologist with overseeing and conducting habitat and wildlife management programs on the 14,480-acre refuge. Located near an isolated coastal community, the refuge is currently unstaffed and is administered by Mattamuskeet NWR staff, which is located 4 hours away. The refuge provides a diversity of estuarine (a highly productive coastal area where seawater mixes with freshwater) and upland habitats (from brackish marsh to pine savanna forest) for a variety of waterfowl (black duck, redhead duck), shorebirds (endangered piping plover, least tern), and many species of commercially and environmentally important fish, shell fish, and crabs. A biological technician is needed to conduct essential habitat and wildlife management programs on the refuge to include wildlife surveys, vegetative surveys, aquatic surveys, prescribed fire, and law enforcement. This position will be required to have collateral law enforcement authority. The refuge and local area have a history of illegal activities that have resulted in wildlife resource poaching, destruction and vandalism of facilities, and unsafe conditions for visitor use.</p> <p>MEASURES: 200 incidents will be documented; 200 other public contacts will be made; 25 cases will be assisted</p>

R4	184	Wheeler NWR	Control invasive/exotic plant species such as alligator weed, Bermuda grass, and water lotus on up to 3,000 acres of Wheeler refuge which provides foraging and resting habitat for peak populations of 125,000 ducks, 20,000 geese, 10,000 shorebirds, 10,000 wading birds, and a number of increasingly rare songbird migrants. These bird species are attracted to the refuge, in part, because of the refuge's ability to produce natural food at critical times of the year. However, these invasive/exotic plant species smother native plants, severely impacting wildlife habitats - that are also important to refuge's 700,000 annual visitors. Plant control will be accomplished through an integrated, multi-pronged approach, including chemical and mechanic treatment, water level manipulation, fire management, and public outreach. MEASURES: 2000 acres will be treated; 4000 acres infested by target species; 1500 acres will be treated chemically; 500 acres will be treated mechanically or physically
R4	119	Catahoula NWR	Provide maintenance staff to fulfill management needs of the refuge. Management activities, such as brush control in moist soil units, have decreased, as has maintenance of refuge equipment, facilities and visitor services. Catahoula National Wildlife Refuge is subject to additional maintenance needs due to severe annual flooding from Catahoula Lake, and the need to maintain 16 miles of fence line to control open range livestock. Existing facilities have been in a long term decline while other refuge programs have expanded and visitor levels have significantly increased. Catahoula NWR also receives a tremendous amount of use by the public that accesses Catahoula Lake through the refuge. MEASURES: 500 new visitors will be served; 25000 existing visitors will be better served; 100% will support the top 6 priority public uses
R4	65	St. Marks NWR	Evaluate mercury contamination of refuge fish, wildlife and habitat. This project will survey mercury levels in fish and wildlife populations and in bottom sediment. As well an evaluation of atmospheric loading of mercury and wet deposition of other pollutants on the refuge and St. Marks Wilderness Area is needed. A past study of levels in refuge fish revealed elevated levels of mercury contamination that exceeded the state's lower consumption advisory. With the heavy fishing use of the refuge by the public, it is imperative that we monitor mercury levels in fish to protect public health as well as endangered species (bald eagles and wood storks), migratory birds, and other wildlife. MEASURES: 2 studies will be conducted
R4	86	White River NWR	Improve water management capabilities at White River National Wildlife Refuge. The expanding beaver population is a serious threat to the integrity of the 160,000-acres of seasonally-flooded, bottomland hardwood forests on the refuge. This proposal would maintain control of beaver populations through removal of individual animals. Beaver dams that have artificially ponded water, which kills trees, will be removed. There are over 100 ponded areas on the refuge that result in negative impacts to over 5,000 acres of bottomland hardwood forest. Beaver population control will protect habitat quality for the over 230 migratory birds that winter and/or breed on the refuge. Additionally, it will afford protection to the forests of the White River Basin, which was designated as a Wetlands of International Importance under the terms of the Ramsar Convention. MEASURES: 1000 mammals will be removed
R4	22	Catahoula NWR	Improve basic public use facilities, services, and outreach efforts to meet the expectations of the public using the refuge. Visitor facilities have steadily declined over time as funding and staffing needs have not kept pace with expanding programs and increased levels of public use. Providing recreational opportunities, interpretation and environmental education are among the purposes for which the refuge was established. Improved visitor services will result in a more enjoyable refuge experience for the public. An increased interpretation and education program will help generate interest in, and support for Service programs. MEASURES: 1000 new visitors will be served; 30000 existing visitors will be better served; 100% will support the top 6 priority public uses

R4	76	Choctaw NWR	<p>Improve Choctaw refuge's ability to enhance wildlife habitat by better managing natural "moist soil units" and cooperatively farmed fields through increased water pumping and habitat manipulations. Home to a wide range of wildlife species, Choctaw refuge is especially valuable migratory bird habitat with thousands of wintering waterfowl using refuge backwaters and managed wetlands, including an important population of wood ducks.</p> <p>MEASURES: 160 existing acres will be farmed more effectively</p>
R4	35	Big Lake NWR	<p>Enhance approximately 300 acres of bottomland hardwood forest on Big Lake National Wildlife Refuge over the next five years. Undesirable species such as river birch, willow, and ash outcompete species that contribute to high habitat quality for migratory songbirds such as Swainson's and hooded warblers and resident wildlife such as white-tailed deer and wild turkey. These less desirable tree species virtually eliminate sunlight from the forest floor, which in turn prevents natural regeneration of hardwood species. This significantly reduces the overall biodiversity of the refuge over time. This project would use chemical and mechanical means to remove unwanted tree species to promote natural regeneration of preferred hardwoods.</p> <p>MEASURES: 300 acres will be treated</p>
R4	81	Sabine NWR	<p>This project will enhance basic operations of headquarters and public use facilities at Sabine National Wildlife Refuge. Refuge staff will increase the amount of time spent interacting with the public providing interpretive, environmental education, volunteer and intern programs and training requirements. The refuge receives over 200,000 visitors annually and by improving these basic operations the refuge will greatly enhance visitor services and visitor information. Funding will allow refuge staff the opportunity to fully implement the Refuge Improvement Act and support the "Big 6" priority public uses that have not been fully integrated into the refuge public use program.</p> <p>MEASURES: 200000 existing visitors will be better served; 100% will support the top 6 priority public uses</p>
R4	25	Eufaula NWR	<p>A proactive, controlled (prescribed) burning program on Eufaula refuge is essential to maintaining diverse wildlife habitats, as well as reduce fuel buildup to prevent devastating wildfire. Effective prescribed burning is also an economical tool to remove undesirable hardwood growth around timber, as well as minimize the spread of invasive exotic plant species. This project will provide training, readiness, adequate tools, other supplies, and personal safety equipment. Project benefits will include higher quality overall habitat diversity, enhanced longleaf pine habitat (an increasingly rare plant community), increased numbers of rare pitcher plants and gopher tortoises, and the removal of dangerous fuel buildup near Lakepoint State Park camp sites, nearby homes, and other adjacent private properties.</p> <p>MEASURES: 600 refuge acres burned under prescription; 6 refuge burns will be conducted</p>
R4	118	Waccamaw NWR	<p>Provide a range technician to assist the refuge manager with the expanding public use programs on Waccamaw NWR. The refuge is presently 7,600 acres and continues to expand at approximately 1,000 acres per year. The range technician will assist with the drafting and performance of wildlife, fisheries and forest management plans. These plans will include initial biological studies to assess the composition(abundance and diversity) of existing wildlife and fish species within the refuge and their habitat. The range technician will also be involved in moist soil management activities for waterfowl, interpretation and outreach, and fire management for forest and wildlife habitat benefits.</p> <p>MEASURES: 10 jurisdictional/boundary issues; 1000 general projects for land acquisition</p>

## NATIONAL WILDLIFE REFUGE SYSTEM

R4	54	Lacassine NWR	<p>Provide improved and more effective public service during periods of increased visitor use. The need to adequately respond to public demand for information regarding the refuge's programs will be met. Approximately 40,000 people visit Lacassine NWR annually.</p> <p>MEASURES: 10000 new visitors will be served; 5000 existing visitors will be better served; 80% will support the top 6 priority public uses; 20% will support non-priority public uses</p>
R5	129	Stewart B. McKinney NWR	<p>Provide an Outdoor Recreation Planner to implement several community-based projects to improve public access and visitation. The Planner will be hired to coordinate the projects and future outreach efforts. The Long Island Sound visitor access at Salt Meadow, Great Meadows, Outer, Chimon, Sheffield and Faulkner Islands will be improved through this project. The Service will provide 3 interpretive structures and 1 interpretive program by working with the Sheffield Light House Association, Faulkner Light Brigade, Sagutuck Audubon Society, Clean Sound and other agencies. One project per site will be accomplished in conjunction with partners. Critical minimum staffing and the state's mandate to create more access to Long Island Sound will be accomplished by implementing this project.</p> <p>MEASURES: 10000 new visitors will be served; 5000 existing visitors will be better served; 80% will support the top 6 priority public uses; 20% will support non-priority public uses</p>
R5	139	Occoquan Bay NWR	<p>Hire an assistant refuge manager to improve the planning, management, and coordination of biological and public use programs at Occoquan Bay National Wildlife Refuge. This manager will coordinate survey and research work being performed by permittees and will expand visitor use opportunities and educational programs in accordance with the refuges Comprehensive Conservation Plan. The manager will develop plans for grassland management, fire management, visitor services and deer management.</p> <p>MEASURES: 1000 new visitors will be served; 4000 existing visitors will be better served; 100% will support the top 6 priority public uses</p>
R5	298	Iroquois NWR	<p>Restore and enhance emergent marsh in Mohawk Pool by dividing the impoundment into several smaller management units with increased water control capabilities. Habitat quality in the current 1,400-acre impoundment is rapidly deteriorating due to the aging (eutrophication) process of the marsh. Most of the pool has become dominated by a cattail monoculture which provides poor habitat and suppresses more desirable food plants. This project will enhance water management capability and yield optimum habitat for significant concentrations of waterfowl, shorebirds, and marsh birds. This project was identified as the most important at the refuge in the draft Western Lake Plains Focus Area Plan under the North American Waterfowl Management Plan. Ducks Unlimited is a partner in the project.</p> <p>MEASURES: 1400 refuge wetland acres will be restored</p>
R5	154	Eastern Shore of Virginia NWR	<p>Conduct biological inventories and monitoring of wildlife resources at the Eastern Shore of Virginia and Fisherman Island National Wildlife Refuges. Species occurrence and population densities for birds, mammals, reptiles, amphibians, and invertebrates will be documented. These data are needed to develop population goals, and implement conservation strategies to achieve these goals, as part of implementing the refuges Comprehensive Conservation Plan. This project will be accomplished as part of a Cost-Sharing partnership with the College of William and Mary's Center for Conservation Biology and the Coastal Virginia Wildlife Observatory.</p> <p>MEASURES: 13 wildlife surveys will be conducted</p>

R6	118	Marais des Cygnes NWR	<p>Develop a basic public use program. Greet visitors, answer questions and phone calls, inform visitors about FWS and Refuge goals/objectives and serve as an emergency dispatch person for any fires, medical emergencies, or law enforcement issues which are reported to the office. In addition, highway directional signing will be initiated on nearby highways in concurrence with the position and should greatly increase visibility of the refuge. Construction of an Information kiosk will serve visitors during weekends. Marais des Cygnes NWR is 40 minutes south of the Kansas City Metro Area of 1.6 million people. Two major U.S. Highways located near the refuge provide easy access from Kansas City and from the upper and western U.S. traveling to the Ozarks Region.</p> <p>MEASURES: 15000 new visitors will be served; 930 existing visitors will be better served; 80% will support the top 6 priority public uses; 20% will support non-priority public uses</p>
R6	118	Boyer Chute NWR	<p>Effectively monitor, track, and administer wildlife and habitat management and visitor services on the refuge. Primary tasks are centered on improved visitation and include property management, budgetary and fiscal accounting, procurement, payroll, vehicle use, energy, safety and travel.</p> <p>MEASURES: 105000 new visitors will be served; 45000 existing visitors will be better served; 100% will support the top 6 priority public uses</p>
R6	94	Bowdoin NWR	<p>Since 1994, the Service has been reintroducing the endangered black-footed ferret on the UL Bend NWR. UL Bend is one of only 2 reintroduction sites in Montana and has been the most successful to date. This project will provide a biological technician to assist with the daily operations required to operate and coordinate the reintroduction program. The black-footed ferret reintroduction program is a refuge, ecosystem, and Service priority. The ferret reintroduction program also benefits Service efforts to protect black-tailed prairie dogs and native prairie habitat.</p> <p>MEASURES: 200 mammals will be released</p>
R6	118	Bowdoin NWR	<p>Enhance daily refuge operations on the 15,500 acre Refuge and 10,000 acre Wetland Management District and permit other staff to focus on Refuge habitat projects. This position will also be instrumental in assisting the Refuge to accommodate increased visitation during the National Wildlife Refuge Centennial celebration in 2003 and the Lewis and Clark Bicentennial celebration in 2005-2006.</p> <p>MEASURES: 13 jurisdictional/boundary issues; 105000 new visitors will be served; 45000 existing visitors will be better served; 80% will support the top 6 priority public uses</p>
R6	139	Quivira NWR	<p>Quivira NWR needs to conduct the habitat and population monitoring and evaluation to initiate Adaptive Resource Management for migratory birds and other species of wildlife and plants. Addition of a wildlife biologist to the staff will allow Quivira to initiate surveys to monitor habitats and populations of waterfowl, non-game migratory birds, and other wildlife on the NWR and adjacent areas. Information is critical for preparation and implementation of Comprehensive Conservation Plan and associated step down plans. This position would allow science based management and insure compatibility of all management decisions. Duties for this position would address all of the top five priorities of the Southern Prairie/Mountain Ecosystem Team.</p> <p>MEASURES: 10 wildlife surveys will be conducted; 5 habitat surveys will be conducted</p>

R6	45	Karl E. Mundt NWR	<p>Reestablish native cottonwood trees on the river bottomlands for the threatened bald eagle. Natural regeneration of native cottonwood trees has not occurred since the completion of the Fort Randall Dam on the Missouri River. The remaining trees below the Dam and on the Karl E. Mundt NWR are reaching maturity. Through the reestablishment of cottonwood trees habitat requirements for bald eagles will be maintained. With no reestablishment, the existing trees will be gone within 50-100 years, severely impacting a major wintering site for bald eagles. This project would reestablish 40 acres of cottonwood trees over a six year period starting in 2001. The Natural Resource Conservation District is a cooperator, cost sharing trees, planting, and maintenance of saplings. An irrigation system will also be needed for watering the trees.</p> <p>MEASURES: 40 acres will be treated</p>
R6	59	Crescent Lake/North Platte NWR Complex	<p>Develop 4 general leaflets and 7 other leaflets for Refuges in Nebraska required under the Service's new publication standard. These new leaflets will provide Nebraska visitors from around the nation and the world, information about the Service mission, the mission of the National Wildlife Refuge System, and the mission of the refuge itself. Through interpretation of refuge and ecosystem resource issues, the leaflets will also promote a better understanding of the issues by the reader, and perhaps, a better respect for the resource. The information in the leaflets will also promote visitor safety through better information.</p> <p>MEASURES: 10000 new visitors will be served; 25000 existing visitors will be better served; 100% will support the top 6 priority public uses</p>
R6	139	Lee Metcalf NWR	<p>Expand the refuge biological monitoring program to its fullest potential with the aid of a biologist. The person in this position will evaluate and track current management programs, recommend for improvement, and in general, help the refuge meet its challenging goals and objectives. The person in this position will help in developing key aspects of the station CCP and also serve as the refuge liaison in networking with the local, state, federal and private counterparts in the scientific and academic communities. This position is needed in order for the refuge to meet its mission, and goals and objectives. This project will also fulfill the intent of the 1997 Refuge Improvement Act to " monitor the status and trends of fish, wildlife and plants in each refuge.</p> <p>MEASURES: 5 studies will be conducted</p>
R6	152	Huron WMD	<p>The Refuge Improvement Act requires that we maintain and inventory biological resources. This funding will provide a wildlife biologist for the refuge who will develop projects that will monitor vegetative changes and wildlife response to management actions such as prescribed fires, grazing, haying, noxious weed control, and native seeding projects. Information is needed to plan management strategies and habitat improvement projects and to collect basic data for the CCP due for completion in 2003. The project would also include surveys for threatened and endangered species with an emphasis on topeka shiner, burying beetle, piping plovers, and the Dakota skipper. Good biological information is needed to evaluate habitat management techniques.</p> <p>MEASURES: 7 studies will be conducted</p>
R6	125	J. Clark Salyer NWR	<p>Restore and manage of over 20,000 acres of native mixed-grass prairie and other grasslands and 5,000 acres of forest. Loss of natural forces which preserved the native prairie communities has resulted in woody plant invasion in and deterioration of grassland habitat. Support resources to maintain grass cover, remove invading woody vegetation, and conduct integrated control of invasive weed species; prepare seedbeds and seed native grasses in previously disturbed areas; rejuvenate over-aged aspen stands; and monitor biological response to management activities will be supplied. The southern portion of the refuge has been recognized as one of two intact grassland landscapes left in North Dakota. The refuge is designated as a Western Hemisphere Shorebird Reserve Network site and as a Globally Important Bird Area by the American Bird Conservancy.</p> <p>MEASURES: 600 refuge acres will be restored</p>



R6	139	Upper Souris NWR	<p>A biologist is necessary to collect survey information to guide management decisions involving 19,000 acres of uplands, mostly native grass, and 13,000 acres of wetlands. Biological expertise is required to collect and analyze scientifically based information to make sound wildlife and habitat adaptive management decisions, to determine whether objectives have been met, to determine whether refuge activities are compatible and to monitor compatible activities for compliance. Our ability to track accomplishments toward achieving objectives and adapt management practices is limited by current biological information collection capabilities. Information is needed to support the development of a Comprehensive Conservation Plan. Data collection will follow Regional and Washington Offices guidelines.</p> <p>MEASURES: 8 wildlife surveys will be conducted; 5 habitat surveys will be conducted</p>
R7	147	Alaska Maritime NWR	<p>Provide an environmental education specialist to develop programs for the new visitor center at Alaska Maritime NWR. The Alaska Maritime NWR is the largest seabird refuge in North America, providing a unique opportunity to educate the public about seabird resources of continental and international significance. The environmental education program has expanded rapidly, currently serving 2,000 students from communities on the Kenai Peninsula and 4 nature camps in the Aleutian and Pribilof islands. The refuge's new administrative and education center will open in 2004 in Homer, providing further opportunities to reach out to the community and local educational groups. The Environmental Education program, which has been run intermittently by seasonal staff, now needs the direction of a full-time permanent Education Specialist to manage the ever-increasing demand for environmental education, develop curriculum for the new center, coordinate the nature camps, and supervise/train up to 6 volunteer instructors.</p> <p>MEASURES: 3000 participants will be at group presentations; 20 news releases will be issued; 12 TV or radio spots will be developed; 1 other special events will be hosted</p>
R7	148	Yukon Flats NWR	<p>Provide a refuge manager trainee to enhance refuge administration and management. The manager trainee will assist with completing non-controversial permits, presenting outreach programs, and completing biological surveys. By allowing a trainee to accomplish these tasks, biological staff and refuge managers will be allowed to concentrate on other priorities like planning, conducting and reporting on wildlife monitoring efforts, improving interagency and tribal coordination, and increasing outreach efforts. This position will also provide an excellent (and needed) starting/training position for a person interested in becoming a refuge manager.</p> <p>MEASURES: 8630000 acres will be affected; 50% effort will be for uplands; 40% effort will be for wetlands; 10% effort will be for deepwater/riverine habitats</p>
R7	156	Kenai NWR	<p>Provide a property manager to enhance management of physical facilities. The Kenaf NWR receives about 500,000 visitors annually and supports a staff that varies seasonally between 28 and 80 employees and volunteers. Extensive physical facilities support the staff and provide visitor services. Campgrounds, a visitor's center, a remote visitor contact station, cabins, a headquarters, shop, outhouses, dump stations, etc. all need maintenance to support all aspects of the Refuge program. Currently, one employee has a collateral duty to manage the maintenance facilities.</p> <p>MEASURES: 400000 existing visitors will be better served; 100% will support the top 6 priority public uses</p>

# NATIONAL WILDLIFE REFUGE SYSTEM

R7	190	Kanuti NWR	<p>Provide a refuge manager/pilot to improve management efficiency of the refuge. Contracting pilot activities has proven to be both unreliable and costly. This project will allow us to better implement our wildlife and habitat inventory plans as well as to reduce the backlog of important administrative work necessary for efficient day-to-day operations of the refuge. This positions will also serve as a collateral duty law enforcement officer that is necessary to monitor the increasing number of hunters accessing the refuge via the Dalton Highway due to increased restrictions elsewhere.</p> <p>MEASURES: 2 wildlife surveys will be conducted; 1 habitat surveys will be conducted</p>
R7	198	Kanuti NWR	<p>Provide support for wildlife and habitat resource work including associated costs of transporting people and supplies to remote locations. This project will allow us to better implement our wildlife and habitat inventory plans as well as to reduce the backlog of important administrative work necessary for efficient day-to-day operations of the refuge.</p> <p>MEASURES: 2 wildlife surveys will be conducted; 1 habitat surveys will be conducted</p>
R7	160	Kodiak NWR	<p>Provide a refuge operations specialist to develop partnership with Akhiok-Kaguyak, Inc. and Old Harbor Native Corporations to conduct public use surveys and law enforcement patrols during recreational seasons on conservation easement lands, as per contractual agreements with these corporations. Project will coordinate other refuge management activities to address concerns raised by the corporations.</p> <p>MEASURES: 3 landowners will be assisted; 100000 acres will be affected; 50% effort will be for uplands; 45% effort will be for wetlands; 5% effort will be for deepwater/riverine/coral reef habitats</p>
R7	27	Kodiak NWR	<p>This project will be used to lease housing for the stations law enforcement officer. The officer is required to live near the refuge headquarters. The headquarters for Kodiak NWR is located in Kodiak, Alaska, a small community located in rural Alaska. This community is accessible only by air or water. The costs identified are limited to a home lease necessary for the position. The market for buying and selling houses is very limited and thus, the refuge leases housing and collects rent from qualifying employees. The officer will partner with Akhiok-Kaguyak, Inc. and Old Harbor Native Corporations to conduct public use surveys and law enforcement patrols during recreational seasons on conservation easement lands per contractual agreements with these corporations.</p> <p>MEASURES: 3 landowners will be assisted; 100000 acres will be affected; 50% effort will be for uplands; 45% effort will be for wetlands; 5% effort will be for deepwater/riverine/coral reef habitats</p>
	7000	Total Highest Priority	

## FY 2004 NWRS Environmental Education RONS List

R1	128	Oregon Coast NWR Complex	An Environmental Education Specialist would coordinate and implement the overall environmental education program for all six Oregon Coastal Refuges and provide leadership and technical assistance to environmental education efforts in the region. The Oregon Coast Refuges have over 1 million visitors per year and very active refuge volunteer and outreach programs. There is tremendous potential to expand existing education programs, including Earth Stewards, Shorebird Sister Schools, Junior Duck Stamp, and environmental education projects with local schools and interested public and private groups. MEASURES: Over 500,000 new visitors will be served with this project
R2	128	Sequoiah NWR	Provide an environmental education specialist to enhance outreach with refuge visitors, hunters, anglers, teachers, and community leaders and to implement the Complex's outreach plan. Sequoia National Wildlife Refuge Complex currently receives 90,000+ visitations each year from local, regional, and national visitors, and these numbers are increasing. Many of these visits involve environmental education, bird watching, photography, hunting, and fishing. This position will focus on environmental education programs at this refuge as well as on environmental education efforts throughout the Region. MEASURES: 5000 new visitors will be served; 50,000 existing visitors will be better served.
R3	128	Detroit River Intl. Wildlife Refuge	This is a Park Ranger position to implement interpretive and educational programming on this new, highly urban refuge. Detroit in the tenth largest city in the US, with huge potential for education and outreach opportunities for the Service. This newly established refuge has strong public and civic support. This individual will also have a strong leadership role in developing and implementing environmental education initiatives throughout the Great Lakes Region. MEASURES: 100,000 people will view off-site exhibits; 5,000 new environmental education visits.
R4	128	Bond Swamp NWR	Provide an environmental education specialist to meet the growing demand for programs in local schools. This project has tremendous potential to expand beyond its current level and the program will provide a model that can be applied throughout the Region. The refuge is an active partner in a local Green way effort involving over 30 partners. These partners have signed an agreement to work together to conserve natural resources while providing public recreation and environmental education. The refuge can provide environmental education and interpretation of wetlands and related wildlife through these local partnerships. The refuge provides the key conservation area and wildlife related recreation opportunities for the 45 mile Green way. MEASURES: 30000 new visitors will be served; 50000 existing visitors will be better served.
R5	128	Walkill NWR	Provide an environmental education specialist to develop and implement environmental education programs at Walkill River NWR and throughout the Northeast Region. The specialist will develop and conduct programs, train and supervise volunteers, ensure visitor safety, and develop local partnerships. The refuge contacts will educate visitors to better understand the needs of wildlife, how to minimize human impacts while enjoying wildlife-dependent activities, and importance of habitat protection. MEASURES: 75,000 new visitors will be served; 40,000 existing visitors will be better served

## NATIONAL WILDLIFE REFUGE SYSTEM

R6	128	Bear River Migratory Bird Refuge	<p>Project will enhance environmental education, interpretation, and community partnerships. With the completion of a new Wildlife Education Center along the only north-south Interstate highway in Utah in 2004, visitation at the Refuge is expected to rise from around 35,000 visitors a year to 500,000. In addition, 250,000 school children live within 100 miles of the Refuge, creating a huge environmental education potential. There is a need for an environmental education specialist to develop and implement environmental education programming, develop education partnerships with the schools and others agencies in the area, and coordinate volunteers that will be needed to help keep the new facility open to the public 7 days a week. This position will also assist with environmental education programming throughout the Region.</p> <p>MEASURES: 100,000 new visitors will be served each year</p>
R7	160	Yukon Delta NWR	<p>Provide an education specialist to The Yukon Delta Comprehensive Conservation Plan calls for extensive efforts to make the public aware of resource issues and conservation goals. Project adds an education specialist with knowledge of Yup'ik culture to improve the refuge environmental education program including teacher training, publications, curricula, and other elements. A portion of project funds are for media development.</p> <p>MEASURES: 2000 participants will be at group presentations; 12 people will view off-site exhibits</p>
R9	72	Nationwide	<p>As part of the Environmental Education initiative, this funding will support ten matching grants with partners to establish or expand refuge environmental education programs.</p> <p>MEASURES: 10,000 new visitors will be served</p>
	1000	Total Environmental Education	

## FY 2004 Land Management Research and Demonstration RONS List

R1	148	Hanford Reach NWR	Senior Wildlife Biologist for a LMRD site at the Hanford Research National Monument/Saddle Mountain NWR. The LMRD biologist identifies, coordinates and conducts wildlife and habitat management research that addresses the needs of the refuge or refuge complex at a broad geographical scale as it relates to long-term Regional management planning. The position is responsible for publishing articles in professional journals and other outlets and presents findings at professional and local meetings. This LMRD biologist will develop training opportunities for wildlife and habitat management experts and employees from the NWRS, and foreign and domestic institutions. The biologist also assists and provides technical advice to refuges and other entities throughout the Region in implementing habitat management plans as well as provides technical assistance to state and federal land management agencies, flyway councils, and private conservation organizations. MEASURES: 6 studies will be conducted; 3 wildlife studies & investigations to be conducted; 3 habitat studies & investigations to be conducted
R1	148	Hanalei NWR	Senior Wildlife Biologist for a LMRD at Hanalei NWR. The LMRD biologist identifies, coordinates and conducts wildlife and habitat management research that addresses the needs of the refuge or refuge complex at a broad geographical scale as it relates to long-term Regional management planning. The position is responsible for publishing articles in professional journals and other outlets and presents findings at professional and local meetings. This LMRD biologist will develop training opportunities for wildlife and habitat management experts and employees from the NWRS, and foreign and domestic institutions. The biologist also assists and provides technical advice to refuges and other entities throughout the Region in implementing habitat management plans as well as provides technical assistance to state and federal land management agencies, flyway councils, and private conservation organizations. MEASURES: 6 studies will be conducted; 3 wildlife studies & investigations to be conducted; 3 habitat studies & investigations to be conducted
R2	148	Bosque del Apache NWR	Improve the role of the NWRS as a model for land management techniques that maintain and restore fish and wildlife populations and their habitats through establishment of LMRD sites. Accomplish through hiring a senior wildlife biologist to oversee implementation of the LMRD site and coordinate and conduct research, as well as to provide training and technical assistance. Professional land managers and others will utilize these sites to learn about cutting edge habitat management techniques and technology. This will include both public and private audiences, and will foster cooperative partnerships. MEASURES: 3 studies will be conducted
R2	148	Balcones Canyon-lands NWR	Improve the role of the NWRS as a model for land management techniques that maintain and restore fish and wildlife populations and their habitats through establishment of LMRD sites. Accomplish through hiring a senior wildlife biologist to oversee implementation of the LMRD site and coordinate and conduct research, as well as to provide training and technical assistance. Professional land managers and others will utilize these sites to learn about cutting edge habitat management techniques and technology. This will include both public and private audiences, and will foster cooperative partnerships. MEASURES: 3 studies will be conducted

R3	148	Neal Smith NWR	Neal Smith NWR is restoring native prairie habitat primarily through conversion of cropland. This is the largest prairie reconstruction project in the country. The project adds a Senior Biologist to the staff to supervise all aspects of the LMRD Program. Incumbent is responsible for statistically designing, prioritizing, scheduling, coordinating, analyzing, and validating results of all wildlife and habitat related studies and objectives. Incumbent is responsible for outreach and publishing articles in professional journals and other outlets and presenting findings at professional and local meetings. MEASURES: 6 studies will be conducted
R3	148	Fergus Falls WMD	The Fergus Falls WMD has been selected to be one of 13 NWRS stations in the United States to host a LMRD site. This project will create a program where the FWS field stations and their partners in the prairie pothole and tallgrass prairie ecoregion will obtain critical information needs on how to restore, enhance and manage prairie wetland/grassland complexes not only for waterfowl, but for all native species of flora and fauna. MEASURES: 100000 #acres will be affected; 45% effort will be for uplands; 45% effort will be for wetlands; 10% effort will be for deepwater/riverine habitats
R4	148	White River NWR	Selectee will serve as the Senior Wildlife Biologist for a LMRD refuge which will be the Bald Knob, Cache and White River NWR's. The LMRD site is approximately 224,000 acres in the Mississippi Alluvial Valley. Project will identify, coordinate, review, and assist with the development and implementation of the Refuge LMRD programs. These programs will include: training opportunities for wildlife and habitat management experts and employees from NWRS; identify wildlife and habitat management research that addresses the needs of the refuge; publish articles in professional journals and present findings at professional and local meetings; assist and provide technical advice to refuges and other FWS entities; provide technical assistance to state and federal land management agencies; and develop public outreach and off-refuge demonstration projects. MEASURES: 20 wildlife surveys will be conducted; 20 habitat surveys will be conducted
R4	149	St. Marks NWR	Restore the endangered longleaf pine ecosystem on the refuge and other public and private lands throughout the Southeast by establishing a LMRD site on St. Marks and Carolina Sandhills NWRs. Longleaf pine forests formerly dominated more than 92 million acres in the Southeast. Today less than 3 million acres remain, most in severely degraded condition. This project will establish a wildlife biologist position on St. Marks NWR to develop innovative longleaf pine restoration and management strategies and techniques on both refuges, attract researchers, pursue grant funding, develop partnerships with other federal, state, and private land managers and consultants, and provide outreach to private landowners and the public. In addition to the positive local economic impact, this project will have regional conservation impact and will address many of the priorities of the various ecosystem teams in Region 4. This project is Region 4's top priority for the establishment of a demonstration area as identified in the Service's Fulfilling the Promise document. MEASURES: 50 refuge acres will be restored; 100 off-refuge acres will be restored
R5	148	Lake Umbagog NWR	This project will create a program where the Lake Umbagog NWR and their partners in northeast forest ecoregion will obtain critical information needs on how to restore, enhance and manage northeast forests for all native plants and animals. Lands within the acquisition boundary of the Lake Umbagog NWR are mixed ownership (private, state, and federal). Anticipated cooperators in this project include the State of New Hampshire, The State of Maine, private conservation groups such as Audubon Society of New Hampshire and the Appalachian Mountain Club, local timber companies and private landowners. MEASURES: 300 acres will be harvested; 12000 acres will be treated

R5	148	Rachel Carson NWR	This project will create a program where the Rachel Carson NWR and local partners in Atlantic maritime coastal area will obtain critical information needs on how to restore, enhance and manage coastal zones for all native plants and animals. Species of interest include breeding piping plovers, grassland nesting birds and state-listed endangered least terns. MEASURES: 5 wildlife surveys will be conducted; 5 habitat surveys will be conducted
R6	149	Arrowwood NWR	The FWS manages a variety of prairie grassland habitats, including native prairie (prairie that has never been converted), re-seeded native grass fields, tame grass, and dense nesting cover. Similarly, numerous wetlands types are present on most refuges, many of which require management. Managers and biologists have a need to evaluate and understand the ecological processes and relationships that drive the entire system. A primary habitat goal of Prairie Pothole area refuges is to preserve, restore, and enhance the ecological diversity and integrity of native flora, other grasslands and wetlands within the tallgrass and mixed-grass prairie ecosystem. This goal is fundamental and directly contributes to demonstrating successful land management practices. Refuges within the Prairie Pothole Region have the capability of fulfilling the research and demonstration needs as they relate to the individual goals and objectives of these refuges. MEASURES: 10 wildlife surveys will be conducted; 10 habitat surveys will be conducted
R7	185	Alaska Maritime NWR	Add a full-time wildlife biologist to implement the LMRD program on Alaska Maritime NWR. The refuge is composed of islands and headlands in the north Pacific Ocean, providing critical habitats for marine birds and mammals, as well as a suite of species that are unique to the refuge islands. The greatest threat is the purposeful and accidental introductions of invasive species, including fox, rats, other rodents, caribou, and reindeer. As an LMRD site, Alaska Maritime NWR will provide examples of: 1) invasive species management program, 2) baseline inventory of biological diversity, 3) long-term monitoring with implications far beyond refuge boundaries, 4) ecoregion planning involving a number of agencies, organizations, and villages. MEASURES: 12 wildlife surveys will be conducted; 2 habitat surveys will be conducted
R7	185	Tetlin NWR	The senior biologist hired would implement the LMRD program at Tetlin NWR. MEASURES: 5 wildlife surveys will be conducted; 5 habitat surveys will be conducted
	2000	Total Land Management Research and Development	

## FY 2004 NWRS New and Expanded RONS List

R1	139	Don Edwards San Francisco Bay NWR	Biologist will plan, implement, and operate retrofit of 9,650 acres of commercial salt ponds the Refuge is obtaining in San Francisco Bay. These ponds will be retrofitted with new tide gates, pumps, and have the levees maintained to 1) keep the ponds from continuing to produce commercial salt which would be harmful to wildlife, and 2) maintain water levels to provide habitat for endangered species, and over one million migrating and wintering waterfowl and shorebirds. Significant numbers of shorebirds, terns and gulls also depend on these ponds for breeding. Environmental Education and wildlife-oriented recreation will be provided in the nation's 4th largest metropolitan area. Planning, implementation, and funding will be done in coordination with state and other federal agencies, as well as private non-profit foundations. MEASURES: 9650 new acres will be managed; 4 new units will be managed
R1	464	Midway Atoll NWR	To support visitor access to Midway, fuel supplies are needed to fuel the Refuge's electrical power generating plant, and visiting aircraft/vessels. Approximately, 500,000 gallons of JP-5 and 20,000 gallons of gasoline fuels would be purchased to support refuge and airfield operations. The Refuge's Henderson Airfield plays the critical role as the only aircraft fueling site in the Northern Pacific Ocean region as well as an emergency landing site for international twin engine commercial aircraft. The purchased fuel would provide needed fuel resources for both military, commercial, and civilian aircraft. The generated fuel receipts would debit the operational contract costs. The fuel is also necessary to carry out Refuge operations such as invasive species control, wildlife censuses and monitoring, and coral reef investigations. MEASURES: 3000 new visitors will be served; 1000 existing visitors will be better served; 60 % will support the top 6 priority public uses; 40 % will support non-priority public uses
R1	242	Don Edwards San Francisco Bay NWR	In 2002, under the leadership of Senator Feinstein, Federal, State, and nonprofit organization funds will be used for the refuge to acquire 5,500 acres of private lands in fee and 4,150 acres of salt-making rights on refuge lands for a total of 9,650 acres of new salt ponds that have never been operated and maintained by the refuge. This project will keep the ponds from continuing to produce commercial salt which would be harmful to wildlife, maintain water levels to provide habitat for endangered species, waterfowl, shorebirds and other species, and provide flood protection for the adjacent urban area such as San Jose. The ponds will be operated to provide open salt water habitat while long-term restoration plans are developed. MEASURES: 9650 new acres will be managed; 4 new units will be managed
R1	90	Midway Atoll NWR	Due to the remoteness of Midway it is imperative that the Refuge have a reliable communication links to carry out routine Refuge and contractor administration activities and to communicate with prospective aircraft, vessels, and visitors. Also, the communication links provide access to weather and tsunami warnings, and communications with others for personnel safety and well being. The Refuge, Airfield and Infrastructure communication costs include satellite uplink/downlink, internet, and telephone services. The Refuge communication costs is \$30K and the Airport and Infrastructure communication cost is \$60K. MEASURES: 3000 new visitors will be served; 1000 existing visitors will be better served; 60 % will support the top 6 priority public uses; 40 % will support non-priority public uses



R1	119	Don Edwards San Francisco Bay NWR	<p>Maintenance Worker will implement, and operate retrofit of 9,650 acres of commercial salt ponds the Refuge is obtaining in San Francisco Bay. These ponds will be retrofitted with new tide gates, pumps, and have the levees maintained to 1) keep the ponds from continuing to produce commercial salt which would be harmful to wildlife, and 2) maintain water levels to provide habitat for endangered species, and over one million migrating and wintering waterfowl and shorebirds. Significant numbers of shorebirds, terns and gulls also depend on these ponds for breeding. Environmental Education and wildlife-oriented recreation will be provided in the nation's 4th largest metropolitan area. Planning, implementation, and funding will be done in coordination with state and other federal agencies, as well as private non-profit foundations.</p> <p>MEASURES: 9650 new acres will be managed; 4 new units will be managed</p>
R1	346	Midway Atoll NWR	<p>To accomplish the Refuge's mission, logistical support by aircraft and vessels is crucial to successful operations. Monthly, the Refuge would be serviced by a chartered aircraft from Honolulu, Hawaii. The aircraft would transport the necessary people, food, and materials to support our large infrastructure operations. Some needed supplies, equipment, and materials can not be transported by aircraft, so there is a need for a vessel to logistically support the Refuge once per year. The vessel could transport such things as refrigerant (Freon), fire extinguishers and other pressurized containers, barrels of lubricating oils, and large heavy items. Every Refuge operation is dependent upon these logistical activities.</p> <p>MEASURES: 3000 new visitors will be served; 1000 existing visitors will be better served; 60 % will support the top 6 priority public uses; 40 % will support non-priority public uses</p>
R1	100	Midway Atoll NWR	<p>To adequately support the Refuge, airfield, and infrastructure operations there must be logistics coordination position. There is a need to have a Refuge staff person available in Honolulu to coordinate aircraft/vessel scheduling and manifests, procurement and storage of supplies and services, loading/off loading cargo, and to meet with other State and Federal agencies about the logistical support of Midway Atoll NWR. The position would be a Procurement Specialist, stationed at the Honolulu Complex Office. This position is critical to the Refuge's success and operational readiness.</p> <p>MEASURES: 3000 new visitors will be served; 1000 existing visitors will be better served; 60 % will support the top 6 priority public uses; 40 % will support non-priority public uses</p>
R2	140	Lower Rio Grande Valley NWR	<p>Provide a full-time law enforcement officer to ensure visitor safety, provide public outreach, and improve resource protection. The recently acquired Boca Chica Tract has unsecured boundaries and extensive public use that serve as catalysts for illegal activities and non-compatible uses. It is necessary to establish a refuge presence in the East Brownsville vicinity to monitor the 25,000 acres managed by the Lower Rio Grande Valley National Wildlife Refuge.</p> <p>MEASURES: 10000 new visitors will be served; 80000 existing visitors will be better served; 100 % will support the top 6 priority public uses</p>

R3	152	Northern Tallgrass Prairie NWR	<p>Provide a resource specialist to protect, restore and manage prairie landscapes in Minnesota and Iowa through acquisition of easements and fee title lands, liaison work with local governments, agencies and non governmental organizations, and public education. Northern tallgrass prairie once covered 25 million acres of Iowa and Minnesota but is now found on less than one percent of its former range. The prairie ecologist will focus on initial contacts for potential fee title and easement acquisitions. In addition, the person will coordinate with FWS field personnel responsible for management of the tracts and will serve as liaison with other agencies, local governments, and non-government organizations in matters relating to prairie ecology and landscape strategies to protect and manage native prairie throughout MN and IA. They will also try to leverage funds with different partnerships.</p> <p>MEASURES: 75 landowners will be assisted; 6000 acres will be affected; 90 % effort will be for uplands; 10 % effort will be for wetlands</p>
R3	128	Middle Mississippi River NWR	<p>Provide a biological technician to manage newly acquired federal land on the lower 200 mile stretch of the Upper Mississippi River System. Plugging drainage ditches, installing water control structures and managing water levels and vegetation would greatly improve the value of these lands for wildlife. Backwater wetlands in the Mississippi River floodplain provide shelter, food and resting areas for fish, migratory birds and resident wildlife. The Service is involved with the Corps of Engineers and the States of Illinois and Missouri on restoration efforts throughout the entire 200 mile stretch of the river. Service presence and partnership in these efforts is critical.</p> <p>MEASURES: 10 miles of refuge rivers will be restored; 75 acres of non-refuge rivers will be restored</p>
R3	139	Northern Tallgrass Prairie	<p>Provide a manager to develop and implement management plans and ensure protection for the prairie easements within the refuge. Northern tallgrass prairie once covered 25 million acres of Iowa and Minnesota but is now found on less than one percent of its former range. In order to protect these remnant prairies, the manager will coordinate with watershed management planning efforts in the Minnesota River basin, northwestern Minnesota and northwestern Iowa. The project directly supports the goals of many Watershed Districts, the Natural Resources Conservation Service and the Partners for Fish and Wildlife Program which works with private landowners to voluntarily protect wildlife habitat.</p> <p>MEASURES: 2000 refuge wetland acres will be restored</p>
R3	129	Big Oaks NWR	<p>Provide a law enforcement officer at Big Oaks NWR (Jefferson Proving Ground) to protect important plant and animal resources. Currently, several illegal activities occur that harm some of these resources, including trespass and illegal harvest of plants and animals. The Service's law enforcement presence will be increased to combat these illegal activities and to educate the local communities as to the harmful effects of these actions. Big Oaks NWR contains the largest unfragmented forest block in southeastern Indiana and 25 State-listed animal species and 46 State-listed plant species have been discovered to date on the refuge.</p> <p>MEASURES: 50 incidents will be documented; 300 other public contacts will be made; 10 cases will be assisted</p>
R3	49	Middle Mississippi River NWR	<p>Plug drainage ditches, install water control structures and manage water levels and vegetation to improve the value of river floodplain lands for wildlife. Backwater wetlands in the Mississippi River floodplain provide shelter, food and resting areas for fish, migratory birds and resident wildlife. Many of these wetlands have been lost due to sedimentation, agriculture and construction of the Mississippi River navigation channel. Since 1996, the refuge has acquired 17,000 acres of flood-prone agricultural land which should be restored to natural habitat. About 500 acres of this land are former wetlands suitable for restoration.</p> <p>MEASURES: 500 refuge wetland acres will be restored; 250 refuge wetland acres will be created</p>

R4	158	Mountain Longleaf NWR	<p>Provide a Refuge Manager to initiate land management on Mountain Longleaf NWR. This new refuge consists of a large block of unique mountain longleaf pine habitat. The refuge is unstaffed and a manager is a critical need to complete budget planning, administration, and daily operations. Currently, Mountain Longleaf NWR is managed through the Wheeler Refuge Complex where personnel have to travel over two and a half hours to get to this new refuge. The addition of this position will improve refuge partnerships and put a local presence in the community.</p> <p>MEASURES: 1000 refuge acres will be restored</p>
R4	124	Vieques NWR	<p>Hire a full-time park ranger to provide resource protection as well as to provide for visitor safety and interpretive and environmental education. With the Departure of the U.S. Navy from the west end of Vieques, resource protection is a high priority. There is an expectation by the local community that public uses that were allowed by the Navy will continue. Without a Service law enforcement presence, both local residents as well as visitors are free to engage in any activities that they choose. Based on recent past history, the majority of the public use visits will not be wildlife-dependent but relate instead to the recreational use of refuge beaches. Therefore visitor safety and environmental education will be an important component of the park ranger position.</p> <p>MEASURES: 25 incidents will be documented; 50 other public contacts will be made; 5 cases will be assisted; 20 NOV's and State citations will be issued; 20 written warnings will be issued</p>
R4	219	Vieques NWR	<p>Establishing the Vieques NWR requires the purchase of office furniture, computer equipment, fax and copy machines, a phone system, a filing system as well as assorted hand and gasoline powered tools for standard field work. Three vehicles will also need to be purchased to provide staff transportation and a field tractor to perform basic maintenance operation.</p> <p>MEASURES: 3 jurisdictional/boundary issues; 15 miles of boundary surveys; 15 miles of boundary posted/maintained</p>
R4	127	Vieques NWR	<p>Provide a refuge officer on Vieques NWR. This position will establish a law enforcement presence on the refuge to ensure adherence to refuge rules and regulations. Currently, violations(poaching, theft, trespassing, vandalism, etc.) are undocumented due to the lack of law enforcement presence. Without this position, violations will multiply, the safety of the visiting public will be compromised, and cost to the resource and to refuge operations will increase drastically.</p> <p>MEASURES: 25 incidents will be documented; 50 other public contacts will be made; 5 cases will be assisted; 20 NOV's and State citations will be issued; 20 written warnings will be issued</p>
R4	134	Vieques NWR	<p>Provide a refuge officer on Vieques NWR. This position will establish a law enforcement presence on the refuge to ensure adherence to refuge rules and regulations. Currently, violations(poaching, theft, trespassing, vandalism, etc.) are undocumented due to the lack of law enforcement presence. Without this position, violations will multiply, the safety of the visiting public will be compromised, and cost to the resource and to refuge operations will increase drastically.</p> <p>MEASURES: 25 incidents will be documented; 100 other public contacts will be made; 5 cases will be assisted; 20 NOV's and State citations will be issued; 25 written warnings will be issued</p>

R4	128	Vieques NWR	<p>Establishing a working relationship with the community of Vieques will require full time outreach efforts. The departure of the U.S. Navy from the west end of the island has left many questions and misconceptions as to its future management. Providing outreach and education now will facilitate the transition to effective Service management. The majority of the public use visits are not wildlife-dependent but relate instead to the recreational use of refuge beaches. This position is needed to provide visitor contact as well as to provide interpretive and educational services. Additionally Vieques demands continuous media contact.</p> <p>MEASURES: 10000 new visitors will be served; 40 % will support the top 6 priority public uses; 60 % will support non-priority public uses</p>
R4	119	Vieques NWR	<p>Provide a Maintenance Worker on the newly established Vieques NWR. This position will assist the Refuge Manager and other maintenance personnel in equipment operation and maintenance of refuge facilities. Vieques NWR was acquired from the U.S. Navy and included infrastructure such as roads, bridges and ammunition bunkers. Many of the roads and bridges need extensive rehabilitation. This position will enable the refuge to meet growing demands for additional public uses by developing facilities such as trails and observation areas. The maintenance worker will also play a critical role in habitat management for rare and important migratory bird species. This position will have the responsibility of upkeep and maintenance of the Service Asset Maintenance Management System database.</p> <p>MEASURES: 1000 new visitors will be served; 1000 existing visitors will be better served; 40% will support the top 6 priority public uses; 60% will support non-priority public uses</p>
R4	127	Vieques NWR	<p>Provide a refuge officer on Vieques NWR. This position will establish a law enforcement presence on the refuge to ensure adherence to refuge rules and regulations. Currently, violations(poaching, theft, trespassing, vandalism, etc.) are undocumented due to the lack of law enforcement presence. Without this position, violations will multiply, the safety of the visiting public will be compromised, and cost to the resource and to refuge operations will increase drastically.</p> <p>MEASURES: 50 incidents will be documented; 75 other public contacts will be made; 5 cases will be assisted; 20 NOV's and State citations will be issued; 25 written warnings will be issued</p>
R4	144	Red River NWR	<p>Provide a refuge manager to initiate land management at this newly established refuge. This new refuge will encompass 50,000 acres of bottomland hardwood, marginal agricultural fields, oxbow lakes, and swamps. The refuge is unstaffed and a manager is a critical need to complete budget planning, administration, and daily operations on this refuge. Currently, this refuge is managed through North Louisiana Refuge Complex where personnel have to travel over two hours to get to this refuge. The addition of this position will improve refuge partnerships and put a local presence in the community.</p> <p>MEASURES: 50 acres will be affected; 30% effort will be for uplands; 60% effort will be for wetlands; 10 % effort will be for deepwater/riverine habitats; 10 activities captured</p>
R5	128	Rappahannock River Valley NWR	<p>Provide a Biologist to initiate population and habitat surveys linking the effects of management to the response of the resources. The biologist will design, conduct and evaluate essential inventories of important resources including habitat types, invasive plant infestations and wildlife populations. The ability of the refuge to track accomplishments toward objectives and adopt proper wildlife and habitat management techniques is limited by the available biological data.</p> <p>MEASURES: 5 wildlife surveys will be conducted; 1 habitat surveys will be conducted</p>

R5	152	Lake Umbagog NWR	<p>Provide a Biologist to increase Service involvement in watershed conservation partnerships. This position will work directly with foresters and landowners to promote management practices that conserve trust species. Increased land development and existing forest management practices adversely affect both terrestrial and aquatic habitats adjoining Lake Umbagog NWR. Private and corporate landowners are interested in receiving technical advice to help improve land for wildlife habitat and to reduce contamination of the Androscogin River watershed.</p> <p>MEASURES: 75 landowners will be assisted; 80000 acres will be affected; 40% effort will be for uplands; 30% effort will be for wetlands; 30% effort will be for deepwater/riverine/coral reef habitats</p>
R5	128	Canaan Valley NWR	<p>Provide a Biologist to design, conduct and evaluate essential inventories of important refuge resources. The biologist will conduct habitat, invasive plant, and wildlife population surveys. The ability of the refuge to track accomplishments toward objectives and adopt proper wildlife and habitat management techniques is limited by the available biological data.</p> <p>MEASURES: 5 wildlife surveys will be conducted; 1 habitat surveys will be conducted</p>
R5	139	Silvio O. Conte Nat'l Fish & Wildlife Refuge-Nulhegan Basin Division	<p>Provide an Outdoor Recreation Planner to guide the planning and implementation of the refuge public use program, direct visitor services, direct summer youth programs, and operate a visitor contact station. Refuge uses will be properly planned and managed to maximize visitor services, yet ensure compatibility with wildlife needs, provide for human safety, and minimize environmental impacts. Public use of the 26,000 acre Nulhegan Basin Division will be provided. Great demand exists for year-round public use of this unique area. A cooperative planning process is underway to solicit public input on public use and develop collaborative public use plans for Service, State, and Essex Timber lands.</p> <p>MEASURES: 5000 new visitors will be served; 10000 existing visitors will be better served; 80% will support the top 6 priority public uses; 20% will support non-priority public uses</p>
R5	129	Rappahannock River Valley NWR	<p>Provide a Refuge Law Enforcement Officer to establish continuity to the refuge law enforcement program, establish a lead officer to maintain records, and provide up-to-date guidance to collateral duty refuge officers. The officer will protect the refuge resource, enforce refuge regulations, and provide visitor safety. The officer will be available to provide public outreach, environmental education and will be the liaison with other Federal and State officers.</p> <p>MEASURES: 100 incidents will be documented; 500 other public contacts will be made; 50 cases will be assisted</p>
R5	119	Cape May NWR	<p>Provide a Maintenance Worker to restore native vegetation on 40 acres of the refuge. The Two Mile Beach Unit of the refuge contains possibly the best maritime forest habitat remaining on the entire coast of New Jersey. The area also contains locally significant sand dunes, wetlands, beach and potential piping plover nesting habitat. This project is highly visible to the local community and the adjacent Coast Guard facility. The maintenance worker will restore the habitat.</p> <p>MEASURES: 50 refuge acres will be restored</p>
R5	129	Eastern Shore Of Virginia NWR	<p>Hire a Refuge Law Enforcement Officer to provide continuity to the entire enforcement program, establish a lead person to maintain records, and provide up-to-date guidance to collateral duty refuge officers. This officer will be available to enforce refuge regulations, provide for visitor safety, and furnish public outreach and environmental education. This position will provide liaison with other Federal and State officers.</p> <p>MEASURES: 100 incidents will be documented; 500 other public contacts will be made; 50 cases will be assisted</p>

## NATIONAL WILDLIFE REFUGE SYSTEM

R6	139	Sand Lake NWR	<p>Increase habitat management capability on newly acquired Grassland Easement lands (82,786 acres). Easement acreage is continually being purchased. Added assistance is needed to provide protection and management on administered lands. Priority issues include wetland resource protection and easement enforcement; upland habitat management including native mixed grass restoration, noxious weed control, grazing/haying/burning land management techniques; wetland management; and public use and outreach.</p> <p>MEASURES: 82786 new acres will be mowed/hayed</p>
R6	139	John W. and Louise Seier NWR	<p>This project would permit accurate inventory and proper management of weed habitats through biological, mechanical and chemical practices. In 1999 the Seier National Wildlife Refuge became part of the National Wildlife Refuge System as a result of a generous donation by the Seier family. The property was an active family ranch prior to donation. The new Refuge has not been inventoried for noxious weeds or invasive species, however leafy spurge, Canada thistle, purple loosestrife, reed canary grass, smooth brome, Kentucky blue grass and cedar are common problems throughout the area. Without this project, the Service will be unable to properly assess potential infestations and prevent degradations of native habitats.</p> <p>MEASURES: 2500 refuge acres will be restored</p>
R6	129	Lost Trail NWR	<p>Provide a Law Enforcement officer to protect Refuge resources and provide for visitor safety on Lost Trail and Swan River NWR's. This position would enforce general Refuge regulations, monitor compliance on special use permits, and assist with public outreach and environmental education programs. Public use on the Refuge is increasing because of its proximity to Kalispell, MT and Glacier National Park. Providing a law enforcement officer will ensure the areas natural resources are protected and also provide an important contact for the visiting public.</p> <p>MEASURES: 30 incidents will be documented; 500 other public contacts will be made; 20 cases will be assisted</p>
R6	152	Lost Trail NWR	<p>Provide a Refuge Manager to direct habitat management activities and develop a public use program. Lost Trail NWR was established in 1999 and protects over 9,000 acres of wetland and upland habitat to benefit numerous species like bald eagles, black terns, blue grouse, and wolves. Providing a Refuge Manager will greatly facilitate the development of this refuge, ensure that Refuge resources are protected, and improve recreational opportunities for the visiting public. Other NWRS lands which will benefit from this project include Swan River NWR and that portion of the NW Montana Wetland Management District north of Flathead Lake.</p> <p>MEASURES: 9000 new acres will be managed; 3000 existing acres will be managed more effectively</p>
	5000	Total New and Expanded	